# MYRMECIA

News Bulletin of the Australian Entomological Society Inc.
**Volume 34, Part 1, February 1998**
Australia Post Print Post Publication PP242296/00144. Price $2

AUST. ENTOMOL. SOC.
EXECUTIVE ADDRESS
**Aust. Entomol. Soc. Executive**
**c/- Dept of Entomology**
**University of Queensland**
**QLD 4072**
**AUSTRALIA**

**SOCIETY WEB SITE**
http://www.uq.edu.au/entomology/aes/intro.html

**Patron**
The Honorable Sir William Deane AC KBE, Governor General of the Commonwealth of Australia

**OFFICE BEARERS**

**President**
Prof. R.L. Kitching
School Aust. Environ. Studies
Griffith University
NATHAN Qld 4111

**Vice President**
Assoc. Prof. M.P. Zalucki
c/- Executive Address above
Ph (07) 3365 2194
Fax (07) 3365 1922
Email
m.zalucki@mailbox.uq.oz.au

**Secretary**
Dr D.E. Walter
c/- Executive Address above
Ph (07) 3365 1564
Fax (07) 3365 1922
Email:
davidw@pest.ctpm.uq.oz.au

**Treasurer**
Ms V.A. Brancatini
CSIRO Entomology
Long Pocket Laboratories
PMB #3 PO
Indooroopilly QLD 4068
Ph (07) 3214 2810
Fax (07) 3214 2885
Email:
veronica@brs.ento.csiro.au

**News Bulletin Editor**
Dr M.J. Fletcher
NSW Agriculture, ARVC
Forest Rd, Orange, NSW 2800
Ph (02) 6391 3800
Fax (02) 6391 3899
Email fletchm@agric.nsw.gov.au

**Public Officer**
Dr I.D. Naumann
CSIRO Entomology
Box 1700 Canberra ACT 2601
Ph (02) 6246 4262
Fax (02) 6246 4000
Email iann@ento.csiro.au

**Chief Editor**
Dr P.G. Allsopp
Sthn Sugar Experiment Stn
Box 651 Bundaberg, Q 4670
Ph (071) 59 3228
Fax (071) 59 3383
Email: aes@interworx.com.au

**Technical Editors**
Dr A.L. Bishop
Horticultural Research Station
Box 581 Gosford NSW 2250
Ph (02) 43481928
Fax (02) 43481910

Dr K.L. Walker
Museum of Victoria
71 Victoria Cres
ABBOTSFORD Vic 3067
Ph (03) 9284 0201
Fax (03) 9416 0475
Email: kwalker@mov.vic.gov.au

Dr A. Wapshere
CSIRO Entomology
Box 1700 Canberra ACT 2601
Ph (02) 6246 4137
Fax (02) 6246 4000

Dr A. Andersen
CSIRO Wildlife & Ecology
Tropical Ecosystems Research Centre
PMB 44, Winnellie NT 0821
Ph (089) 22 1727
Fax (089) 47 0052
Email
Alan.Andersen@terc.csiro.au

**Immediate Past President**
Prof. R.E. Jones
Pro-Vice Chancellor
James Cook University,
Townsville, Qld 4811
Ph (077) 81 5451
Fax (077) 81 4452
Email:
rhondda.jones@jcu.edu.au

**Business Manager**
Mr Mike Jefferies
c/o ANIC, CSIRO Div. of Entomology, PO BOX 1700, CANBERRA, ACT 2607
Ph (02) 62864033
Fax (02) 6246 4000
Email mjefferi@pcug.org.au

**Promotions Officer**
Jennifer Marohasy
c/- Executive Address above
Ph: (07) 3379 3261 or message at: (07) 3365 2271
Mobile: 019 624833
Fax: (07) 3379 3261
Email: jenifer@powerup.com.au

**CONSERVATION COMMITTEE**

Assoc/Prof. Jonathon Majer
School of Environmental Biology
Curtin University of Technology
GPO Box U1987
Perth WA 6001
Ph (09) 351 7964
Fax (09) 351 2495
Email imajer@info.curtin.edu.au

Dr T. New (Vic)
Ph (03) 9479 1111
Fax (03) 9478 5814

Dr R. Coy (Vic)
Ph (03) 9419 5200
Fax (03) 9416 0475

Dr P. Horne (Vic)
Ph (03) 9810 1528
Fax (03) 9819 5653

Dr E.G. Matthews (SA)
Ph (08) 8207 7500
Fax (08) 8207 7222

Dr A.N. Andersen (NT)
Ph (089) 22 1727
Fax (089) 47 0052

Mr P. Dostine (NT)
Ph (089) 79 9711
Fax (089) 79 2076

Ms G. Carruthers (ACT)
Ph (02) 6272 5070
Fax (02) 6272 5074

Dr G. Friend (WA)
Ph (09) 405 5121
Fax (09) 306 1641

Dr R.V. Gunning (NSW)
Ph (02) 67631128
Fax (02) 67679370

Dr G. Williams (NSW)
Ph (02) 9339 8111

Vice President & Secretary are *ex officio* members of the Conservation Committee

**THE COVER**

The cover depicts *Junonia villida calybe*, the meadow argus butterfly. The illustration, which won third prize in the Student Colour section of the 1997 AES Scientific Illustration Competition, was prepared by **Justin Slevin** of the University of Newcastle.

# MYRMECIA

## CONTENTS


Executive Report . . . . . 1
Reports . . . . . 3
AES Research Grant Report . . . . . 3
Regional News
Australian Capital Territory . . . . . 5
New South Wales . . . . . 7
Northern Territory . . . . . 8
Queensland . . . . . 11
South Australia . . . . . 15
Tasmania . . . . . 18
Victoria . . . . . 19
Western Australia . . . . . 20
FASTS News . . . . . 21
Electronic News . . . . . 25
Student News . . . . . 26
Coming Events . . . . . 28
New Publications . . . . . 31
Notices . . . . . 32
Auditor's Report . . . . . 35
Membership Appl. Form . . inside back cover



**ADVERTISING RATES FOR MYRMECIA**

| | Single Issue | 4 Issues (One year) |
|---|---|---|
| Full Page | $60 | $180 |
| Half Page | $35 | $105 |
| Quarter Page | $24 | $72 |

These rates apply to camera-ready copy supplied by the advertiser. Where this is not supplied, an additional charge may be made for the layout.

In addition, loose inserts and pamphlets supplied by the advertiser will be included in a mailout for $100 per item. The items should be of a size which will not project beyond the pages of *Myrmecia*. PLEASE NOTE: Inserts are no longer handled by the Editor. If you wish to include an insert in *Myrmecia* please contact Shirley Green of Blackwell Science (Asia). Contact details are on the back cover of this issue.


## NOTICE


Statements made in *Myrmecia* do not necessarily represent the views of the Australian Entomological Society. Items printed herein should not be reproduced without permission of the author of the material.


**COPY DEADLINE FOR NEXT ISSUE**

Material for publication in the May 1998 issue of *Myrmecia* should be in the hands of the Editor at the address below by **Friday 24 April 1998**. Submission to fletchm@agric.nsw.gov.au is preferred but submission on IBM-compatible floppy disk in a major word processing format, or by fax, letter or carrier pigeon to the address below is acceptable.


Murray FLETCHER
AES News Bulletin Editor
Orange Agricultural Institute
Forest Road, ORANGE NSW 2800
Fax: 02 6391 3899
Email: fletchm@agric.nsw.gov.au


**SOCIETY HONORARY MEMBERS**

Dr B.R. Champ
Dr I.F.B. Common
Dr E.N. Marks
Dr K.R. Norris
Dr C.N. Smithers
Dr D.F. Waterhouse

**MACKERRAS MEDALLISTS**

1984 Dr J.A.L. Watson
1986 Dr R.W. Sutherst
1988 Dr T.R. New
1990 Dr R.A.I. Drew
1992 Dr E.S. Nielsen
1996 Dr M.P. Zalucki

**SOCIETY SUSTAINING ASSOCIATES**

Aust. Entomol. Supplies
Ciba-Geigy Ltd
Cyanamid Australia Pty Ltd
Dow Elanco (Aust) Ltd
Hoechst-Schering AgrEvo P/L

## EXECUTIVE REPORT

**MEETINGS**

The Core Executive met on 7 November and 12 December 1997.

**NEW MEMBERS**

Elected as Full Member:

Roy MASAMDU, PO Box 1639, Lae, Papua New Guinea, spctaro@datec.com.pg (675) 4751189, FAX (675) 4751189

Christopher W. HOOD, Counsellor (Agriculture),

(Residence: Australian Embassy, 2-1-14 Mita, Mintao-KJ, Tokyo 108 Japan), Tokyo Bag, Locked Bag 40, Kingston ACT 2604, chris.hood@dfat.gov.au 813 52324027, FAX 813 52324029

Dr Patricia DRUMOND, School of Biological Sciences, University of Sydney, Macleay Building A12, Sydney NSW 2006, pdrumond@bio.usyd.edu.au (02) 93513143, Fax (02) 9351 4771

Pranish PRASAD, Plant Protection Services, South Pacific Commission, Private Mail Bag, Suva, Fiji, pranish@spc.org.fj 679 370733, FAX 679 370021

Elected as Student Members:

Elisha Jade LADHAMS, 1/50 Swan Rd, Attadale, Perth, WA 6156, Pladhamsej@cc.curtin.edu.au (09) 330-6080

**FROM MINUTES OF THE CORE EXECUTIVE**

The new journal will feature the drawing of *Paraoxyphilus* sp (Amorphoscelidae) by **Sharyn Wragg**.

The Public Officer, **Ian Naumann**, being on extended leave, the Treasurer, **Veronica Brancatini**, was installed as Acting Public Officer to deal with problems with the Society's registration. The long awaited audit is about finished, and a clear idea of the Society's financial state should soon be available.

The Executive sadly noted that **Bill Vogt** at CSIRO in Canberra died on December 11 and recommended that an obituary in *Myrmecia* should be sought.

**New Council Members and Executive Appointments**

**Toni Withers** will be resigning as Councillor for SE Queensland in March, and she'll be off to a job in New Zealand. We wish Toni the best of luck, and the same to **Tony Clarke**, who will replace her.

David WALTER
Hon. Secretary

**STILL URGENT!**
**MESSAGE FROM VERONICA**

1998 SUBSCRIPTIONS WERE DUE ON JAN 1 WITH A LARGE NUMBER OF MEMBERS WITH 1997 PAYMENTS STILL OUTSTANDING. THE SOCIETY CANNOT AFFORD TO CARRY THESE MEMBERS SO, UNLESS YOU WISH TO BE EXCLUDED FROM MEMBERSHIP, PROMPT PAYMENT OF ALL OUTSTANDING SUBS WOULD BE APPRECIATED.

**UNIVERSITY ENTOMOLOGISTS**
**PLEASE NOTE**

A list of Postgraduate Projects in Entomology currently being undertaken in Australian institutions is now being compiled for publication in *Myrmecia*. Please send details of PhD, Masters and Honours projects to your local Regional Councillor by **Friday 17 April, 1998** who will then forward their list to me for final collation.

Details required are:

Name of Student
Project Title
Degree
Name of Department and Institution.

**Please start getting your list together now!**

Gary TAYLOR
gtaylor@waite.adelaide.edu.au

# REPORTS

**Workshop on modelling lightbrown apple moth populations and management**

The first lightbrown apple moth (LBAM) modelling workshop to develop a model for population dynamics and management was held at the Institute of Horticultural Development, Knoxfield from 3-5 December 1997. The workshop was organised by **Wijesiri Danthanarayana** of UNE and **Bob Sutherst** of CTPM/CSIRO under the sponsorship of the RIRDC, UNE Division of Zoology and the CRC for Viticulture. The aim of the workshop was to develop a DYMEX-based simulation model in order to improve existing knowledge of:

(1) the population dynamics
(2) the geographical distribution and relative abundance
(3) damage and economics
(4) management and decision making.

During this most successful workshop, a preliminary model was built "on the fly" by inputting some elements of data on-hand. The main aspects considered during the workshop included:

(1) LBAM model specifications - objectives, structure, data, biology
(2) LBAM as a pest of grapes and control
(3) LBAM as a pest of pome and stone fruits - primarily apple - and control
(4) application of the various control methods - chemical, biological, cultural, pheromone, and other
(5) damage and economics
(6) integration with the control of other associated pests of any one crop - insect, mite or pathogen
(7) future plans and potential projects to improve the knowledge, expectations and satisfaction of researchers, extension workers, and growers in relation to biology, ecology and management of this pest.

It was decided to hold a further workshop(s) in 1998 for the purpose of updating the model(s) and integrating those that are being developed by individuals or groups. Participants were: DeAnn Glenn, David Madge (AgVic), Margaret Williams (DPI&F Hobart), Craig McDonald, Shelley Rozario, Bob Emmett (CRC for Viticulture), Max Suckling and Andrew Tomkins (Hort Research, NZ), Mark Smith (HRDC), Bob Collyer (RIRDC), Gunter Maywald, Bob Sutherst (CTPM/CSIRO) and Wijesiri Danthanarayana (UNE). Those who wish to have more information about this and future workshops may contact:

**Bob Sutherst**
R.Sutherst@ctpm.uq.edu.au
**Wijesiri Danthanarayana**
wdanthan@metz.une.edu.au).

# AES RESEARCH GRANT REPORT

**A search for rare spoon-winged lacewings in Western Australia (*Chasmoptera* spp.; Neuroptera: Nemopteridae)**

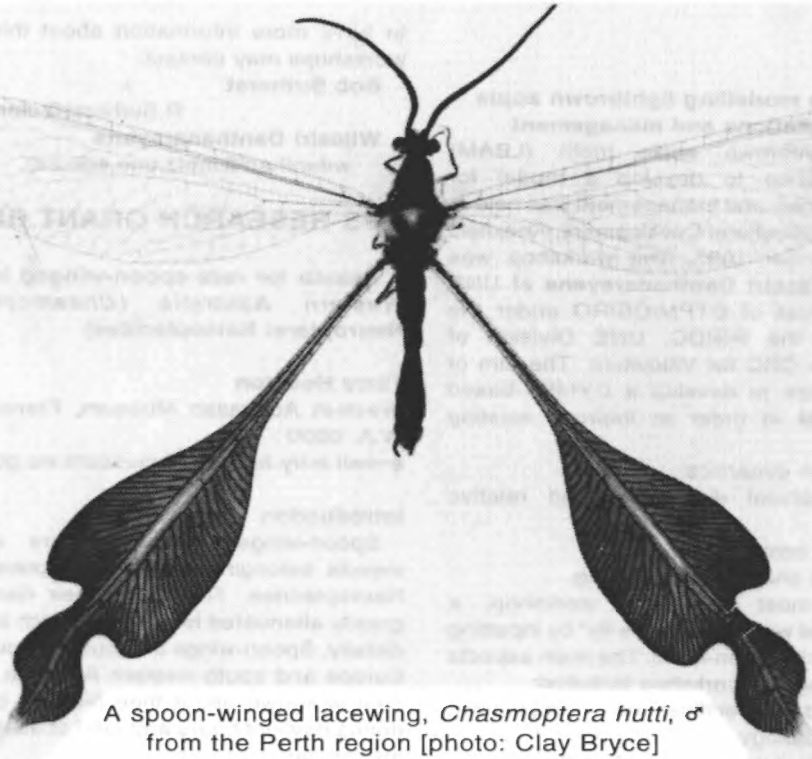
**Terry Houston**
Western Australian Museum, Francis St, Perth, W.A. 6000
e-mail terry.houston@museum.wa.gov.au

**Introduction**

Spoon-winged lacewings are extraordinary insects belonging to the neuropteran subfamily Neuropterinae. They take their name from the greatly attenuated hind wings which are expanded distally. Spoon-wings are found in southern Africa, Europe and south-western Australia. Not a great deal is known about their biology, but adults fly during daylight hours and feed at flowers on pollen and nectar.

Of several genera in the subfamily, *Chasmoptera* is the only one to occur in Australia where it is endemic to the south-west of the continent. Koch (1967) revised the genus recognizing three species. One of these, *C. hutti* (Westwood), occurs in and around Perth and is reasonably well collected. Two others, *C. superba* Tillyard and *C. mathewsi* Koch, were described from unique holotypes.

Since Koch's revision, quite a few new specimens have been added to the collection of the Western Australian Museum. I collected specimens occasionally over several years and observed that the insects were sometimes locally common. I found them in heath over sandy soils, always in the month of November. On attempting to identify my specimens using Koch's 1967 key, I found some of them did not fit the characters and evidently represented three undescribed species. Additionally, among the specimens of *C. hutti* that Koch had examined and identified, I found four males from Lake Grace that appeared distinct enough to be regarded as yet another species. None of the new specimens in the WAM matched



A spoon-winged lacewing, *Chasmoptera hutti*, ♂ from the Perth region [photo: Clay Bryce]

the types of *C. superba* or *C. mathewsi*.

It seemed that a new revision of the genus was warranted and I approached Dr Tim New of La Trobe University to see if he would be interested. Tim was definitely interested but we agreed that it was highly desirable to first try to obtain further material of *superba* and *mathewsi* and the Lake Grace species. The AES provided funds for fieldwork to search for two of these apparently rare spoon-wings in the central and southern wheatbelt of Western Australia. It was hoped WAM-funded fieldwork could locate the third.

**Methods**

In late November 1996, I conducted a 10-day field trip to nature reserves in the general region of Cunderdin (the type-locality of *C. superba*) and Lake Grace. The reserves visited had been selected in consultation with Department of Conservation and Land Management officers and were those that possessed sand-heath habitat. Reserves visited and searched were Charles Gardner Nature Reserve, 15 km S of Tammin; Durokoppin N.R., 25 km N of Kellerberrin; Dragon Rocks N.R. 37 km N of Newdegate; Lake Magenta N.R., 35 km S of Newdegate; and Tarin Rock N.R. (south), 15 km NE of Kukerin. The route covered 1431 km.

I concentrated attention on heaths, especially heaths over sand. My technique was to walk slowly through the heath watching for spoon-wings rising out of the vegetation with the intention of netting them in the air or once they had resettled. This was how I had collected most specimens previously. In addition, I operated a mercury vapour light-sheet in evenings, hoping to attract specimens.

**Results**

No sightings of *Chasmoptera* were made. Collecting conditions during the days had seemed ideal with warm to very hot temperatures and light winds. Conditions in the evenings for light-sheeting were less favourable because of strong, cool

breezes. Various other vegetation associations were also searched when heaths proved unproductive, but still with nil results.

General insect collecting was undertaken in the course of this trip resulting in a number of interesting finds. Among them were four new species of the bee genus *Leioproctus* specialized on flowers of *Persoonia* (one representing the first record of the subgenus *Filiglossa* in WA) and a new species of sun-moth (Castniidae). Papers describing these species are currently in preparation.

**Discussion**

Failure to find any *Chasmoptera* was most disappointing but the significance of this failure is uncertain. No spoon-wings at all were collected in 1996 by me or my WA Insect Study Society associates, despite excursions to areas north of Perth where some had been collected previously. Our searches of some known *Chasmoptera* collection localities in November 1997 again proved fruitless except that a population of one known species near Geraldton was rediscovered by a WAISS member. Perhaps the insects emerge as adults only in certain years (possibly linked with certain climatic factors). Alternatively, they may have very patchy distributions, congregating in limited areas which change from year to year.

Despite the recent collecting failures, revisionary studies will proceed.

**Reference**

Koch, L.E. 1967. The genus *Chasmoptera* (Neuroptera: Nemopteridae), with the description of a new species from Western Australia. *Proceedings of the Royal Entomological Society of London (B)* **36** (9-10): 137-146.

# REGIONAL NEWS

## AUSTRALIAN CAPITAL TERRITORY

### Australian National Insect Collection

In mid January **Ebbe Nielsen** served on the Appointment Committee for the Chair in Systematic Zoology, Uppsala University, Sweden. He will be in Darwin in early February to participate in the GEF/Biodiversity Convention International Taxonomy Workshop "Removing the Taxonomic Impediment" and will be in Helsinki later in the month as the *opponent* to a doctoral thesis, participating in a Nordic workshop "Biodiversity and Taxonomy", and visiting the Berlin Museum.

**Wendy Lee** has taken a break from databasing dung beetles, leaving space for **Chris Reid** to do some systematics for 4 months. **Ray Gagne**, cecidologist from the Smithsonian, will visit the ANIC in January before heading to Adelaide to work with **Peter Koleesik** (Waite Campus). **Ian Reid** has BIOCLIM, DOMAIN, and all databasing tools up and running for the CRC-TREM project, generating colour maps of actual and predicted distributions of databased dung beetles. Wendy and Ian will visit **Ross Storey** in Mareeba to complete data entry for Ross's QDPI dung beetle collections. **Peter Cranston** will talk on the results of this project at a joint CRC-TREM meeting with the Smithsonian Tropical Research Institute (STRI) in Brisbane in April, following his next quarterly field work in TREM streams

**Ben Gunn**, still glowing from his student prize award at ASL, has taken some summer work with ACTEW. **Ian Wright** has returned to Sydney Water for six months to top up the financial reserves, severely depleted by his search for the prettiest lake between S.E. Tasmania and Cape Flattery, far North Queensland.

**Peter Cranston** and **Penny Gullan** have been successful with separate applications to the Australian Academy of Science for funding to do systematic work in European institutions later in the year. These projects comprise 20% of the Academy's 1998 allocation to the joint AAS-Royal Society scheme. So, systematics *can* get competitive funds. Due to inclement weather in Namibia in November (no rain) **Don Edward** (UWA, Perth) and Peter cancelled their planned visit in search of the midge *Archaeochlus biko* - the last animal required for molecular and morphological analysis of the Gondwana vicariant genus; the trip has been rescheduled for late January. Peter and Don will also call in on botanists **Peter Linder** and **Mike Crisp** (on sabbatical in SA) and South African aquatic entomological colleagues to find other local, phylogenetically-basal taxa.

### CSIRO Entomology - Biotechnology

The Bt business is hot at present and **Ray Akhurst**'s lab has expanded for new members of the Bt project. **Cheryl Beard**, formerly University of

New England, has joined the project as a postdoc after two years in Canada. Her expertise in procaryotic molecular biology will help generate new insecticidal crystal proteins - part of a GRDC initiative for *Helicoverpa* management in grains. **Constanza Angelucci** has begun a CRDC-funded PhD on the binding of the Cry1Ac d-endotoxin to *H. armigera*. **Joanne Gough**, CSIRO Tropical Agriculture, recently spent two weeks in the lab learning techniques for novel insecticidal crystal proteins. **David Dall** hosted a visit by **David O'Reilly**, Imperial College, London, to discuss collaborative work on insect viruses.

**Australian Defence Force Academy**

**Ian Harman** is now in the wind-up phase of his PhD project on the development and evaluation of an Insect Monitoring Radar (IMR). After making a final set of observations at Canberra early in 1997, he concentrated on analysing his Texas and Longreach datasets and on drafting his thesis. **Alastair Drake** joined **Peter Gregg** (UNE) and **Alice Del Socorro** (UNE) on a survey of winter moth breeding in inland NSW and Qld in July, identifying sites for IMRs at Bourke and Thargomindah. Alistair and Peter continued to Brisbane to participate in CRC-TPM's *Helicoverpa*-forecasting workshop at UQ. In November, **Haikou Wang**, formerly of Nanjing Agricultural University, joined the ADFA group as a postgraduate student, to work on insect movement in inland Australia. This project is a collaboration with Peter Gregg and **"Dan" Danthanarayana** (UNE) and **David Hunter** (APLC). Visitors during the year included **Jeremy McNeil** and **Joanne Delisle** (Université Laval, Quebec), and **Hugh Dingle** (University of California, Davis; currently on sabbatical at UQ).

Marcus MATTHEWS
Regional Councillor

**Division of Botany & Zoology, ANU**

Two honours students commenced entomological projects at the beginning of February: **Holly Trueman**'s project is on the molecular phylogenetics of margarodids (Hemiptera: Coccoidea) and she is supervised by **Penny Gullan, Lyn Cook** (Bot. & Zool.) and **Eldon Ball** (Research School of Biological Sciences, ANU). Holly spent the summer months working in Eldon's lab in RSBS on the genetic control of segmentation in embryos of a damselfly (funded by an RSBS Honours Scholarship). **Sophia Dimitriadis** is studying the chironomid assemblages in sedimentary cores from NSW alpine lakes; she is supervised by **Peter Cranston** (CSIRO) and **Patrick De Deckker** (Geology Dept, ANU).

Several honours students started entomological (or arachnological) projects in mid 1997 and are well into their research. **Claire Stephens** has completed fieldwork for her project on grasshopper assemblages in native A.C.T. grasslands and now is busy identifying plants from grasshopper crops and carrying out data analysis from her field surveys. **Erica Willis** is busy slidemounting and identifying chironomids from seasonal and diel samples of chironomids from Brindabella streams. **Paul Dobson** continues work on the insecticidal crystal proteins of Bt. **Stuart Dennis** is still dissecting the nervous systems of black field crickets and **Stuart Chignell** has heaps of behavioural data on the huntsman spider *Delena cancerides* and, with his spider-catching skills, could make a small fortune supplying specimens for an "Arachnophobia II" (or are we already on to No. III?).

**Robert Hoare** is in the final stages of writing up his PhD thesis on the systematics of Australian nepticulid moths. He is due to start a position as the lepidopteran systematist at Landcare Research NZ in May this year. **Lyn Cook** recently started working with **Penny Gullan** on her ABRS-funded research on Australian eriococcid scale insects. **Katie Strong** took up employment at the Australian Institute of Health & Welfare in late 1997 after working on eriococcids with Penny for a couple of years.

**Plant Quarantine Policy Branch**

AQIS Plant Quarantine Policy Branch has been busy preparing for an influx of new staff in February following a recruitment drive last year. **Alison Roach** commences with AQIS permanently in January and **Wendy Odgers** and **Daniel Bedoe** also commenced in January and will be assisting in the management of fruit flies as well as furthering the pest risk analysis effort of the Branch. **Bill Roberts**, the current branch head of the Plant Quarantine Policy Branch, has accepted an appointment as Chief Plant Protection Officer and will no longer be the head of the Branch. The position for branch head was advertised in early January. Considerable changes both in accommodation and responsibilities are occurring

Laurence Mound (centre foreground) and Peter Gillespie (far left) pose with participants in the Thrips Identification Workshop held in Canberra in December.

within the branch with the influx of new staff. Advertisements for the second wave of recruitments went out at the end of January.

Glynn MAYNARD
Regional Councillor

**NEW SOUTH WALES**

**Orange Agricultural Institute**

Summer has brought another wave of Papaya fruit fly methyl-eugenol traps and western flower thrips sticky traps to keep the temporary staff flat out once again. **Matt Kerr** is running the WFT side of things with **Linda Semeraro** having ascended to leafhoppers with **Murray Fletcher**'s ABRS-funded typhlocybine project entering its final year of funding. **Brad McNeill** and **Ben Porter** spend their days sorting through the fruit fly trap catches while **Anna Nikandrow** has the mind bogglingly interesting task of sorting through sterile fruit fly pupal remnants to determine emerging success rates. **Peter Gillespie** is still walking on air after the publication of the Identification Guide to Thrips Associated with Crops in Australia which he prepared jointly with **Laurence Mound**.

From 1st to 5th December **Peter Gillespie** assisted **Laurence Mound** in the presentation of a Thrips Identification Workshop at Canberra College of TAFE. Western Australians made up nearly half of the participants (13) with the remainder from other Australian States (Qld, SA), Thailand, Tonga, Vanuatu and Tuvalu. All participants had an enjoyable week whilst mastering the finer arts of mounting and identification of thrips. These activities were interspersed with various presentations on aspects of the biology, ecology and pest management of thrips (see photo above).

**Jasbir Mann** has left us to take up residency in Vancouver. Orange suited Jasbir but not his familywho were split up between Sydney and Orange and separated from their extended family as well. We wish him and his family well and hope that the typhlocybine collaboration that was working so well in Orange can continue remotely.

**John Macdonald** and **Danuta Knihinicki** hosted a brief visit from **Uri Gerson** in December to look through our collection of cheyletid mites. While at the Institute Uri presented a seminar on detection of tracheal mites in honeybees.

The entomologists of Orange swarm in the Metropolitan Hotel Bistro for Christmas lunch [photo: Zamir Hossain]

John spent a few days in Brisbane to visit **Stefan Schmidt** to talk sawflies. **Myron Zalucki** paid a fleeting visit to the Institute as well, on his way to meetings in other parts of NSW.

Christmas seemed to be an excuse for the entomologists of Orange to get together for a celebratory lunch (see photo above). The lunch, initiated by **Geoff Gurr**, was held on 23 December and brought together the entomological staff and students of the Orange Agricultural College, Bathurst Agricultural Research Station and the Orange Agricultural Institute. Naturally, this has now become an annual event.

We are concerned that authors of some recent taxonomic monographs on Australian insects obviously have not visited or contacted all Australian collections to look for relevant material. In particular, the entomological collections held in Orange date back to 1890 and have had the privilege of several early workers as resident curators, including WW Froggatt and A.M. Lea. While some authors are aware of the significance of such collections, other authors seem to be unaware that these collections sometimes hold important material. Not only do the authors therefore miss such material, but collections such as ours do not have the benefit of the author's input. All taxonomic workers are therefore encouraged to make use of the CHAEC home page to contact all Australian collections to determine what material is available for their study.

## NORTHERN TERRITORY

### Parks and Wildlife Commission of the NT

Did anybody else notice the recent announcement by the Minister for the Environment giving special protection to white pointers and grey nurses on the grounds that more Australians are killed each year by bee stings than shark attacks? If the cartilaginous fish lobby thinks that we entomologists are going to take this assault on the pre-eminent position of arthropods in human mortality lying down, they've got another

thingcoming. Redbacks on toilet seats are as much a part of what it means to be Australian as great whites off Bondi Beach! If man-eating sharks deserve special protection, then so do killer bees and funnel webs!

Apart from becoming incensed, **Colin Wilson** has also been island hopping through the back blocks of eastern Indonesia surveying for Siam weed. His tephritid gall fly is well established and spreading in west Timor and he will shortly begin to redistribute it to the other islands. Colin recently took part in a novel team building exercise with other members of the National Weed Strategy Executive Committee. They were presented with a mini-bus trapped by a torrential downpour on a black soil plain out past Hughenden in central Queensland. The object of the exercise was to extricate the bus and be back in Charters Towers in time for dinner. They made it, give or take a few hours.

**Museums and Art Galleries of NT**
**Entomology Branch**

Most of **Graham Brown's** work still continues around the refurbishment of the Museum's Natural Sciences gallery including regular collecting and light-trapping trips in the vicinity of Darwin (if one manages to get through the fruit fly road blocks successfully). Recent field work also included trips to Oenpelli in western Arnhemland and Kakadu, but both were rather wet (not surprising for this time of the year) and collecting was not quite as good as it had been on other occasions. The Museum lost a valued and long term volunteer, **John Purdie**, when he moved to Townsville earlier this month. Unfortunately he arrived in time for the flooding and now reports that the smell of wet and rotting carpet is widespread in Townsville.

**Territory Health Services**
**Medical Entomology Branch**

The last 3 months have been an extremely hard slog for the Branch's technical officers. **Gwenda Hayes** and her intrepid band of vector control officers **Ross Nowland**, **Jane Carter** and **Barbara Love** have put in a superhuman effort, consisting of many long hours (often on weekends) surveying and controlling salt marsh mosquitoes. These operations were conducted in the swamps near Darwin, following spring tides and the first rains of the wet season. Although these operations are usually done with the aid of a helicopter there were several occasions where 4WD vehicle operations were necessary. These operations are often conducted in conditions of extreme humidity, heat, heavy mud (that refuses to be shaken off) and with the ever present threat of snakes, feral pigs and overgrown salt water "geckoes".

Their unsung efforts have protected the residents of Darwin from the worst of the saltmarsh mosquito plagues and significantly reduced the risk of Ross River virus and Barmah Forest virus transmission. Now that the swamps are full their attention has turned to controlling the productive ephemeral mosquito breeding sites in and near municipal Darwin that have been created by heavy wet season rain.

In February **Ross Nowland** and **Jane Carter** will embark on a whistle stop trip to the Queensland border on a container breeding survey for larvae of *Aedes aegypti*, a vector of Dengue Fever. At the same time a survey of vulnerable points for exotic *Aedes* introduction into Darwin will also be conducted.

**Brian** and **Antoinette Montgomery** welcomed the arrival of their third son (Lachlan) in January. A plethora of planning matters continue to dominate much of Brian's time. In the near future he will be conducting a survey in and around the satellite city of Palmerston to characterise the most productive mosquito breeding sites.

**Peter Whelan** has just returned from 2 weeks leave. In March he will participate (as one of a team of Australian specialists) in a workshop to prevent the introduction of exotic mosquito species into New Zealand.

**CSIRO Tropical Ecology Research Centre**
**Wildlife and Ecology**

The Wildlife and Ecology invertebrate lab has seen a few changing faces and not just in response to the steamy Wet season weather.

In **Alan Andersen**'s ant lab, **Roger Clay**, from Adelaide, is sorting ants from his own surveys over a three week visit. **Ben Hoffman** has shot to media fame with stories of the rapidly expanding colonies of the introduced big headed ant *Pheidole megacephala* within Darwin and local rainforest refuges. **Andrea Salvorani** has been gallivanting across Tasmania and New Zealand on a holiday with his parents at such a pace that Andrea could not even look at ants in *Podocarpus* forests ! **Andy Chapman**, a CSIRO agricultural scientist, is helping Andrea and **Alaric Fisher** work through

ants from the Mitchell grassland whilst testing Alan's new key to ant genera. **Sue Witteveen**, a work experience student from Monash University, is here sorting ants for a month.

Beetle wise, **Ros Blanche** is churning away at analysis and writing, as well as supervising **Nina Kurucz**'s Masters project at NTU on beetles from grazing gradients. Ros is happy to have received a 3 year post-doctoral fellowship at NTU working on transmission of phytoplasma diseases by insects to sugar cane, which will start in 6 months. **Tony Hertog** continues to sort species from the last NATT field trip. Adding some more Latin influence to the lab, is **Jerome Orgeas**, who has come from France with his wife Katherine, for 2 years to study land use impacts on savanna beetles.

At the spider end of the lab, **Jenni Webber** has commenced 6 months' part time work with **Tracey Churchill** to help resolve the cute and diverse species of jumping spiders (Salticidae) being collected. Tracey has managed to recognise over 30 species of Zodariidae, most of which are in one genus and will soon experience climate change via a journey to a German taxonomist. A couple of other species represent new genera, one with its nearest known relative in Hawaii, soon to be described. **Kristy Hoath** finished her four month industrial placement with Tracey on a spider project relating to grazing gradients. Meanwhile, **Gus Wanganeen** is gaining confidence recognising spider families under Tracey's direction.

**Lyn Lowe**, in her very own grasshopper corner, was busy helping to organise and go to the 7th International meeting of the Orthopterists Society in Cairns in October. **Paul Brock** presented their paper on the stick insects of Kakadu.

**CSIRO Entomology**

**Martin Steinbauer** and **Penny Edwards** have changed locations in recent months, with Penny arriving from Canberra in November to join the CSIRO mimosa team, and Martin departing for Canberra to join the eucalypt CRC at CSIRO Entomology. **Wendy Forno** visited in January for discussions with DPIF and to talk with CSIRO staff. Professor **Tosio Kumata** from Japan visited in January and February to collect Gracillariidae for his Australian revision of this family. Professor Kumata was surprised to learn that larvae of one of the mimosa biological control agents, *Neurostrota gunniella*, bore in the stems of mimosa, as well as the more usual habit of gracillariids to mine the leaves.

**Department of Primary Industry and Fisheries Entomology Branch**

An exotic fruit fly was recovered from traps in the Darwin suburb of Karama during late November. Initially the fly was thought to be *Bactrocera papayae* but **Dick Drew** subsequently identified it as *B. philippinensis*. The discovery threw the Entomology Branch into chaos with five out of the eight members being seconded to the fruit fly eradication campaign. **Stuart Smith** headed up the eradication operations. Stuart set about training pick up teams of accountants, engineers, university and high school students for baiting, spraying and collection of fruit. An enthusiastic team from the QDPI Papaya Fruit Fly Program; **Rachael Osborne, Bill McDonald** and **Vic Roseverne** were seconded to lend their expertise to the NTDPI & F campaign. The number of traps in the northern suburbs of Darwin was increased and the area of the outbreak was delineated. The outbreak area is now surrounded with baits and blocks. Stuart has commandeered a large downstairs room in the BAL building at Berrimah where he is surrounded by a team of fruit fly "identifiers", label writers, map makers, bait makers and whatever other tasks are necessary for the campaign. The place hums fifteen hours a day six days a week. **Deanna Chin** is breeding out flies from the mountains of fruit collected from the outbreak area. **Mike Neal** has worked long hours supervising the blocking teams. At the end of January, Stuart was confident the outbreak was contained and eradication is only a matter of time.

As for the rest of us in the branch we just muddle on, with **Graham Young** in charge of **Haidee Brown** and **Lanni Zhang. Heather Wallace**, who was into fruit flies long before any of this occurred, continues to plod along with her experiments on the 2 pest species in NT that are not on the list to be eradicated ... well not yet anyway.

**Northern Australia Quarantine Strategy**

Despite the flurry of activity trying to eradicate the philippino fruit fly from Darwin, **Glenn Bellis** has managed to remain on the fringes only and is organising trapping in all of the aboriginal communities across the Top End. To make this

task manageable (there are 14 communities involved spread over about 1500 km of coastline) he has enlisted a team of cooperators at most of the sites. Even the much reduced task of keeping these cooperators informed and stocked with the latest in fruit fly collecting gear is keeping him busy.

**Quarantine Inspection Branch**

**Ted Fenner**, along with other DPIF entomologists and many other Departmental staff, was having a seriously busy time toward year's end following the detection in November of an exotic fruit fly outbreak in suburban Darwin. The invaders were provisionally identified as *Bactrocera papayae* but later confirmed as its sibling species from the Philippines, *B. philippinensis*. They appeared to have completed at least one local generation during the mango fruiting season but the breeding population has proved to be confined to a few square km and prospects for early eradication are good.

Before the above excitement, Ted had established by experiment that mature mango fruit do not represent any risk of transmitting any stage of the recently established mango leafhopper, *Idioscopus nitidulus*. All in all though, he considered himself lucky to have been able to take end-of-year leave visiting family and friends in various parts of the country.

**Weeds Biocontrol Branch**

Straws were being drawn by staff to participate in an experiment to determine the effect of various mechanical and chemical weed control methods on biocontrol agent populations. The code name for the operation was "Helanbak", not the name of the station where the experiment took place but a description of the conditions participating staff must endure. Each mimosa stem in a given area had to be accounted for and this meant hours of crawling through mud under mimosa prickles in the searing heat only a Top End build up season can produce. The only respite was sitting around the campfire at night listening to **Bruce Hitchins** recite Banjo Paterson, or was that part of the reason straws were being drawn?

**Northern Territory University**

Several field experiments of **Renkang Peng's** current RIRDC project "Utilisation of the green ant *Oecophylla smaragdina* to control cashew insect pests" are completed. Full isolation of ant colonies combined with ant colony transformation in cashew plantations has proved to be an effective way to stabilise ant populations resulting in a high yield. **David Shearer**, the owner of Wildman River Plantation, made a decision to adopt the green ant technology in 1997. Since then Peng has spent a lot of time introducing green ants to David's staff and their new home. Peng will be presenting a paper for the Sixth Australasian Applied Entomology Conference which will be held in Brisbane, 1998.

Glenn BELLIS
Regional Councillor

**S.E. QUEENSLAND**

**Toni Withers** has had to finish her term as Councillor for Brisbane, due to a job offer from the New Zealand Forest Research Institute. She has been replaced by **Tony Clarke**, Dept. of Entomology, The University of Queensland, St. Lucia Q 4072, ph 07 3365 7918

**CRC for Tropical Pest Management**

**Bob Sutherst, Steve Harrison** and **Tania Yonow** organised a Workshop on the "Economic assessment of the costs of Tree Dieback under climate change" on 7th November. Some very interesting presentations and discussions were a feature of the workshop. **Bob Sutherst** gave a paper entitled "Climate variability, seasonal forecasting and insect pests - the need for a synoptic view", jointly authored by **R.W. Sutherst, G. de Zylva** and **A.S. Bourne** to the "Symposium on Applications of Seasonal Climate Forecasting in Agricultural and Natural Ecosystems – The Australian Experience" in Brisbane on 13th November.

**Sue Heisswolf** and **Ethna Brown** have produced "Pests and Beneficials in Brassica Crops", a booklet for anyone involved in managing pests in brassica vegetable crops. As well as providing clear photos of pests, predators and parasites, it gives detailed descriptions on how to monitor for these pests and beneficials in commercial brassica crops. Price is $18. To order your copy, contact DPI Publications: ph 1800 816 541, fax (07) 3239 6509 or email books@dpi.qld.gov.au.

**Myron Zalucki** attended the North American Conference on the Monarch Butterfly in Morelia,

Mexico from 8-15 November. Apart from having a good time he gave a joint paper with **Wayne Rochester** entitled: Estimating the effect of climate on the distribution and abundance of the monarch butterfly, *Danaus plexippus*: a tale of two continents.

**Glenn Graham** and **David Yeates** went to Hawaii to visit scientists at the University of Hawaii to discuss potential collaborations on fruit fly research.

**John Sheehy**, IRRI, visited **Peter Room** and **Tomo Watanabe** at Long Pocket 26-27 November to discuss virtual rice. In addition, Profs. **Liang Weili** (Dept. Agronomy, Agricultural University of Hebei, P.R. China) and **Glyn Rimmington** (Institute of Land and Food Resources, University of Melbourne) visited **Peter Room** & **Jim Hanan** in late December to initiate collaboration on simulating interactions between damage and growth of individual leaves of plants.

**Anna Yeomans** has been working at the Alan Fletcher Research Station, assisting **Toni Withers** with research into the feeding behaviour of the biocontrol agent *Zygogramma bicolorata*, under different types of host specificity testing regimes.

**CSIRO, Long Pocket Laboratories**

In early February **Peter Room** visited collaborators at INRA, near Versailles in chilly France before presenting a paper and a poster at a meeting on The Manipulation of Crop Architecture at Rothamsted in the UK. **Przemek Prusinkiewicz** will arrive in Brisbane at the same time as Peter to collaborate with **Jim Hanan** and Peter on writing a sequel to "The Algorithmic Beauty of Plants" book about handling information on structural growth of plants and interactions with insects. **Soon-Won Lee** from the Taegu Apple Research Institute, South Korea spent 3 months with the Tropical Horticulture & Chemical Ecology Group, CSIRO, from October - December 1997, with visits to NSW, Victorian, South Australian and Tasmanian Agriculture Department laboratories. Purpose of the visit was to learn about Australian pest control research and, particularly, to see at first hand the implementation of IPM in apple orchards. McMaster Fellow, Professor **Jeremy McNeil**, Dept. of Biology, Laval University, Quebec, Canada, accompanied by Professor **Joanne Delisle** (Forestry Canada), were visitors at the laboratories during December and early January. The purpose of their visit was to contribute to the understanding of insect migration. As part of their studies they ventured north to Townsville, Cairns and the Atherton Tablelands, together with **Don Sands**, in search of what proved to be rather elusive fruit piercing moths. **James Earnest**, Bubia Agriculture Research Centre, PNG, spent a week at the laboratories following completion of the Beneficial Organisms in Pest Management Systems at the CTPM in November. James is involved in our Biological Control of Green Vegetable Bug project and familiarised himself with operations at the Australian end. **Jun Ma**, Dept. Plant Protection, Hunan Agricultural University, Changsha, China, spent a few days at the laboratory in December becoming familiar with some of the techniques we use in our pheromone research projects. **Emma-Jayne Kam**, a student at Southern Cross University, spent a week with us in December gaining first hand experience with our pheromone and biological control projects.

**Richard Vickers** presented a paper on the use of pheromones for monitoring macadamia nut borer at the III Asia-Pacific Conference of Entomology, Taichung, Taiwan in November.

The *Mimosa pigra* project has benefited from an injection of Natural Heritage Trust funds allowing continuation of biological control and the commencement of an integrated control sub-project. The second green seed feeder of *Mimosa pigra* has been processed through Brisbane quarantine and sent to Darwin for release. *Sibinia fastigiata* which feeds on young green seeds has joined *Chalcodermus serripes*, which prefers older green seed. *Sibinia* could not be bred in quarantine and so a protocol had to be developed to allow direct release of field collected adults. Negotiations between **Tim Heard** and AQIS officials resulted in an agreed protocol following a review, by **Leonie Wittenberg**, of the best methods and chemicals for surface disinfestation.

**Ryan Zonneveld**, assisted by **Sounthi Subaaharana** has perfected the rearing and host testing methodology of three species of leaf tiers on *Mimosa pigra*. The host range of these three species can now be determined and their suitability for release in Australia can be assessed.

The first agent for biological control of *Prosopis* spp. weeds to result from the CSIRO project has been tested and is awaiting approval for release. **Rieks van Klinken** and **Tim Heard** are seeking interest from state departments for releases of this

and future agents. **Areli Mira** and Rieks are now focusing their efforts on completing studies on a psyllid *Prosopidopsylla flava*, which is showing great promise.

Surveys in the native range of belly-ache bush, *Jatropha gossypiella*, are being undertaken by **Wendy Forno** and her Mexican team of **Ricardo Segura** and **Moises Martinez**. This plant is increasing in importance as a weed in tropical Australia.

**Gio Fichera** and **Dalio Mira** are mass rearing two species of *Eutinobothrus*, stem weevils of *Sida acuta*. The adults are sent to the Northern Territory for release in the Darwin and Katherine areas.

**Dept. of Natural Resources**

**Ben Gray**, a CTPM vacation scholar is doing a project on the *Lantana* biocontrol agent *Teleonemia scrupulosa* feeding on *Lippia alba*, an introduced related weed. **Virendra Pratap** is working with **Graham Donnelly**, rearing *Algarobius* mesquite seed beetles. Graham also recently visited *Algarobius* release sites in North western Queensland.

Recent recoveries have been made of the Groundsel bush leaf skeletoniser, *Bucculatrix ivella* (Lep.: Lyonetiidae) on Groundsel bush growing on islands in southern Moreton Bay. It was originally released in 1991 in the Beerwah district north of Brisbane.

**Queensland Museum**

**Tony Ewart**, retired Professor of Geology at the University of Queensland, has become an Honorary Research Fellow of the Museum. Tony visits the Entomology Section about once a week when he's not out in the field collecting and recording cicadas. In December the entire Entomology Section including **Tony Ewart** and **Phil Lawless** from Arachnology made a whirlwind visit to dry vine scrubs at Isla Gorge, Robinson Gorge and the Monto area. The trip was highly successful as insects were abundant following good rainfalls. Live specimens of the dung beetle *Onthophagus apterus* were taken. They are now in culture at the museum and are nesting well.

**Geoff Monteith** and **Doug Cook** will breeze through the Wet Tropics from 4 - 13 February, emptying traps set during their November trip. Hopefully they will be full of the elusive *Pamborus elegans*. Geoff and Doug will also be setting numerous dung beetle traps, baited with mushrooms, carrion and dung, between Townsville and Cairns.

**Phil Perkins** from the Museum of Comparative Zoology at Harvard spent two weeks in December collecting water beetles of the family Hydraenidae in North Queensland. However he was forced out by the flood and headed back to the south-east where he visited the Queensland Museum. He will be collecting in southern-eastern Queensland and northern New South Wales until the end of January.

Professor **Seigo Higashi** from Hokkaido University, Japan will be visiting Brisbane for 6 months from late March to study the social structure of meat ants.

**Queensland Institute of Medical Research**

**Brian Kay** and **Michael Brown** have recently returned from Jakarta where they were involved in field trials of the disposable sticky lure developed by **Lynda Muir** and Brian. The field trials were a great success with all parties involved in the project, namely QIMR, the Indonesian Ministry of Health and US Navy Medical Research unit, extremely excited by the results. Overall, the lures collected more than ten times the number of adult *Aedes aegypti* and *Culex quinquefasciatus* mosquitoes than comparable resting adult collections.

The Mosquito Control Laboratory will be losing two PhD scholars in January. **Craig Jennings**, who studied the "Intrinsic and extrinsic factors affecting the vector competence of *Aedes vigilax* for Ross River virus" will join Redcliffe City Council as their entomologist in charge of mosquito control. **Bruce Russell** will join the Army Malaria Institute and will be involved in implementing new arbovirus programs. For his PhD Bruce investigated the importance of subterranean mosquito breeding sites in north Queensland.

From 1998 QIMR has become an NHMRC block funded institute. **Brian Kay**'s laboratory obtained NHMRC funding to continue their work into Dengue fever and also to study the domestic vertebrate hosts of Ross River and Barmah Forest viruses. Two smaller grants from Rotary and Queensland Arbovirus Advisory Committee will allow freshwater mosquito control programs to be assessed and improved in Queensland.

**University of Queensland, Dept. of Entomology**

Professor **Andre Cokl**, from the University of

Slovenia, visited the department for four weeks during which he investigated the sound communication and neural processing information of bugs and grasshoppers. **Shaun Hood** has found himself a job at the DNR Maroochy Research Station where he's working on fruit spotting bugs. **David Yeates** has left the department for six months of study leave at the North Carolina State University and the University of Illinios. He's visiting **Brian Wiegmann** in North Carolina, where they will complete a manuscript on the phylogeny of Diptera, work on the "Tree of Life" WWW project, and examine maximum likelihood methods of phylogenetic inference. In Illinois, Dave will visit Professor **Mike Irwin**, and will complete a manuscript on the phylogeny of the Therevidae and begin research on the biogeography of the major clades of Therevidae.

**Gimme Walter** is visiting **Dr Hengeveld** at the Institute of Forestry and Nature Research in the Netherlands, where they will discuss autecology. He then will visit **Hainan Gu** at the Institute of Plant Sciences in Switzerland, where he will discuss prospects for extending joint research on *Helicoverpa armigera*.

**Volker Hartenstein** recently arrived and will be based within the department, where he will be working with **David Merritt** and **Bernie Degnan** (Zoology) on the neural development of invertebrates. **Lu Ronsheng** is visiting from the Forest Research Institute of Guangxi in China, and will be associated with **Gordon Gordh**. Lu will be working on biological control, especially in artificial diets for egg parasites such as *Trichogramma* to control the pine tree caterpillar in his country. **Chen Xue Xin** (Entomology and Taxonomy) and **Zhang Jing Ze** (Plant Pathology) are visiting the department where they will be working on LUCID. **Saskia Kriesch** has arrived from the Agricultural Department of Entomology, University of Wageningen, the Netherlands. Her supervisor in the Netherlands is Prof. **Marcel Dicke**. While here, she will be working with **Dave Walter** on phytoseiid mites.

The department has had an influx of new postgraduate students: **Gia Parkes, Andrew McDowell, Juanita Choo, Darren Wong, Narelle Power** and **Jodie Christensen** are all beginning honours; **Matthew Saxby** and **Tim Fischer** are beginning postgraduate diplomas and **Chris Palmer** and **Udomporn Pangnakorn** are beginning PhDs.

Toni WITHERS
Regional Councillor

**QDPI**

**Geoff Waite** (Nambour) and the rest of the "Better Berries" Strawberry Team are off to Florida and California for two weeks in February on a study tour of the strawberry industries in those two states. Geoff will be catching up on the latest pest management approaches used in strawberries there as well as informing them of our successful system, especially the latest technique for establishing predatory mites.

**Shaun Hood** has joined Geoff's fruitspotting bug team working out of Maroochy after obtaining his PhD from Qld. Uni. for his project on *Penicillaria jocosatrix* in cashews carried out at Wildman River, N.T. Although he experienced fruitspotting bugs there he has quickly realised that they are a real problem in subtropical and tropical fruit and nuts.

**Frank Page** (Applethorpe) reports that the first release in December of the introduced parasitoid *Pseudaphycus maculipennis* seems to have gone well. Although levels of parasitism of its host, the grapevine mealybug, *Pseudococcus affinis*, are still low there is evidence that the parasitoid has established at the release site in an apple orchard at Stanthorpe.

**Gordon Simpson**'s mirid research team in Toowoomba has 3 new members for the summer cotton season. **Renee Cornford**, a CTPM vacation scholar from 1996, has joined the team to complete the bioassays of insecticides against green mirids which formed a substantial part of her scholarship, as well as field sampling and lab experiments to evaluate the fecundity of the pest. **Benedette Cavallaro** is conducting experiments to evaluate age-grading methods for adults. Honours student **David Lea**, who is working mainly with whiteflies for **Bernie Franzmann**, has done some field sampling work and will be helping Renee and Ben with their work.

**Bernie Franzmann** (Toowoomba) has received HRDC funding to monitor for silverleaf whitefly and its natural enemies in the major horticultural areas of Queensland and to develop IPM strategies for crops in the Ayr/Bowen area of the dry tropics. Participants in the project include **Bruno Pinese** (Mareeba), **John Brown** (Ayr), **Iain Kay** (Bundaberg) and **John Hargreaves** (Cleveland).

Congratulations to **Bronwyn Houlding** (Gatton) on the birth of her daughter, Erin Jane, in late

November. Bronwyn is on maternity leave but hopes to return part-time to the totally fascinating world of insects in February.

**Rod Elder** (DPI retired), **John Olds** and **Paul O'Neil** (Dept of Environment) recently spent two weeks in the Coral Sea on a patrol boat (HMAS Ipswich) surveying the coral cays for the scale *Pulvinaria urbicola* (and sea birds) for the Australian National Parks and Wildlife Service. The scale is causing severe damage to *Pisonia grandis*, the dominant tree on some of the islands. *P. grandis* is dispersed by its sticky seeds which at times glue the wings of seabirds together, eventually killing them. *Pisonia grandis* and its relatives occur mostly on coral cays, favouring the phosphatic soils of these reef islands. They now have records of two islands, Coringa in the Coral sea and Tryon (near Heron Is. in the Capricorn/Bunker group) on which *Pisonia* populations have been reduced by at least 80% and will probably completely disappear. Other islands are not affected and the scale is in very low numbers. The reasons for this difference are being investigated as the loss of *Pisonia* has large conservation implications. The survey took them out as far as Willis Island which has a manned met. station and which is about 500 km east of Cairns/Townsville. They beat the cyclone season and experienced very calm seas the whole time. Investigations are continuing in the Capricorn/Bunker Islands with the next survey planned for April.

**BSES**

**Peter Samson** moved from Bundaberg to Mackay in January to carry on his work on the management of sugarcane pests from that northern centre. He hopes also to catch many large barramundi and some smaller butterflies. **Paul Timson-Farrell**, who will be working with Peter, moved some months earlier as the advance guard.

**Peter Allsopp** visited **Frances FitzGibbon** and **Paul De Barro** to discuss the Pest Risk Analysis for sugarcane pests they are preparing for NAQS-AQIS. Peter managed a quick look at some scarabs in ANIC during the visit.

The Sugar Research and Development Corporation hosted a meeting in Townsville to discuss progress on IPM in sugarcane. **Les Robertson** ran the show, with attendance and input from **Peter Allsopp, Peter Samson, Keith Chandler, David Logan, Rhondda Jones, John Rogers, Andrew Ward** and a wide range of industry representatives.

The proceedings of the Third Brisbane Workshop on Soil Invertebrates held in July 1997 have been published. Copies are available from **Peter Allsopp** and **John Rogers.**

Iain KAY
Regional Councillor

**SOUTH AUSTRALIA**

**Department of Crop Protection**
**The University of Adelaide**

On November 18 an informal gathering at Urrbrae House, Waite Campus to celebrate the 80th birthday of noted coccidologist **Helen Brookes** was attended by **Tom Browning, Otto Schmidt, Tom White, David Morgan, Roger Laughlin, Andy Austin** and **Paul Dangerfield**, along with a number of other former colleagues and their partners,

In early December, **Rick Roush** hosted a visit by Professor **Janet Hemingway** of the University of Cardiff in the UK. Janet is a world authority on the molecular genetics, management, and mechanisms of resistance in mosquitoes and other insects. Janet also visited **John McKenzie**'s group in the Genetics Department at the University of Melbourne on 8 December and presented a seminar on the molecular genetics of gene amplification events in insecticide resistance both there and at the Waite later in the week.

In December, **Rick Roush** was selected as the next Director of the CRC for Weed Management Systems, which is based at the Waite Institute in Adelaide and housed near the Department of Crop Protection. Rick takes up the position on February 2. The current term of this CRC lasts for another 4.5 years, after which Rick plans to return full time to research and teaching. In the meantime, Rick will maintain his interests in resistance management and biological control of weeds by encouraging others to do the real work!

"The other 99%: The Conservation and Biodiversity of Invertebrates Conference at the Australian Museum was attended by **Andy Austin, Paul Dangerfield** and **Mohammad Iqbal.** Congratulations to Iqbal who was awarded the best student poster entitled "Systematics and species richness of Baeine wasps (Hymenoptera: Scelionidae): parasitoids of spider eggs".

Also in December, and indeed clashing badly with the Biodiversity Conference, was the annual pilgrimage of about 25 local entomologists to The British Hotel for their end of year luncheon.

**Cate Hill** has recently submitted her PhD on "The mode of action of *Bacillus thuringiensis* against the sheep louse, *Bovicola ovis*". She has accepted a 2-3 year Post-doc position, starting in March, with Elanco Animal Health in Greenfield, Indianapolis to work on identification of novel targets for animal pest control with **Jesus Gutierrez** and **Chuck Smith**.

Two entomologically-related large ARC grants were successful: **Andy Austin**'s application "The origin of parasitism in the wasps (Hymenoptera) - a molecular study", and **Rick Roush** with "Resistance to *Bacillus thuringiensis* toxins in diamond-back moth". Successful small ARC grants recently announced were: **Mike Keller** and **Gary Taylor**'s application entitled "Antioxidants in transgenic plants for robust resistance against aphids", **Mike Keller** and **Brigitte Tenhumberg** with "Influence of individual strategies of resource exploitation on population processes in a patchy environment: dispersal of foragers in response to the distribution of resources", **Andy Austin** with "Utility of mitochondrial transfer RNA gene arrangements for phylogenetic studies" and **Otto Schmidt** for "Genetic modification of a biopesticide improving rate of primary infection in the insect pest".

**Entomology Unit**
**South Australian Research**
**and Development Institute**

**Jean-Louis Sagliocco** from CSIRO Montferrier-sur-Lez visited **Peter Bailey** in January to discuss biological control of *Reseda lutea* by *Baris picicornis*. In November, 1997, **Marcos Gerding** from INRA, Chile, visited to talk about biological control of *Bruchus pisorum*. Viticulture student **Sarah Whiteley** received first class honours from the University of Adelaide for her work with Peter on disinfestation of table grapes of *Epiphyas postvittana*, *Pseudococcus longispinus* and *Latrodectus hasselti*.

**South Australian Museum**

Visitors to the Museum included **Merril Sweet** from the Department of Biology, Texas A & M University who is on study leave in Australia for several months but spending most of his time in Adelaide. He is a world specialist on the heteropterous family Lygaeidae with a special interest in the genus *Plinthisus* which he revised with Slater in 1977 and is currently updating. Also on a short visit is **Klaus Sattler** from the Lepidoptera section of the Natural History Museum, London. He is examining museum specimens before revising the family Gelechiidae for the Zoological Catalogue.

**Archie (the ant) McArthur** has again been scuttling about the country. In early December he was collecting ants around Grafton with **Rodney Eastwood**; he visited **Marlene Elson-Harris** at DPI, Brisbane; **Margaret Schneider** at the University of Queensland and **Geoff Monteith** and **Susan Evans** at the Queensland Museum. At the moment he's resting at the Museum while working on specimens he brought back from Queensland.

**Shelley Barker** went on a field trip to Streaky Bay in mid December in search of a "long lost" Blackburn species of *Cisseus*. Much to his delight two specimens were obtained and compared with the type on return to Adelaide. Subsequently he found a series of specimens, collected in Western Australia, which had been misidentified and were hiding in the wrong tray!

**Department of Pharmacy**
**The University of South Australia**

The mosquito research in the Environment Research Group at the University of South Australia has adopted appropriate technology to get the job done. When engaged to conduct a seasonal survey of mosquitoes in Adelaide's South Parklands by the Patawalonga Catchment Water Management Board researchers were faced with an access problem. How were they to convey their traps and samples all over the South Parklands without resorting to some noisy and destructive off-road vehicle? The answer: a mosquito bike and trailer. Under supervision of **Michael Kokkin**, the team leader, the intrepid field workers are pictured on right: **Terry Fessas** (Honours student), **Ben Smith** (PhD student) and **Craig Williams** (PhD student). One of the major dangers foreseen by Michael, who has commuted to work in Adelaide by bicycle for ten years, was posed by motorists. What if some impatient, cycle-hostile driver knocked his students down on their way to the parklands? In response, the mosquito bicycle trailer was painted luminous orange and emblazoned with reflective tape. Of course, the

Dept of Pharmacy (Univ of SA) Mosquito Bike and Team
(L to R): Terry Fessas, Ben Smith and Craig Williams

temptation to add a picture of a mosquito could not be resisted! So, if you are driving in Adelaide, you can't miss the bright orange "rig" on its way to and from its research site with a precious graduate student as pilot. Or should we say, "please miss it!"

**Flinders University**

**Mike Schwarz**'s lab has been buzzing with activity in the last few months. Mike is enjoying a well-earned field trip, where he is having a break from organising the IUSSI conference, to be held in Adelaide, 29th Dec this year to 3rd Jan, 1999. **Pam Hurst** is writing up her PhD thesis and caring for her newborn daughter (Elowyn) simultaneously. She has a recent publication in *Aust J. Ecol.* (1997, 22:) on kin co-founding and high relatedness in the bee *Exoneura bicolor* and, with **Mike Schwarz**, another in *Victorian Naturalist* (1997, 114(1):7) on the effects of honey bees on native bees.

**Nick Bull** has several papers in review and a recent publication in *Aust. J. Ent.* (1997, 36: 391) on sib-rearing in orphans of *E. bicolor*. **Adam Cronin** is also completing his PhD and has a recent publication in *Evol. Ecol.* (1997, 11:567) on sex ratio and eusociality in *E. richardsoni*. **Ni Watiniasih** has completed her field and lab work on the native bee, E. *eremophila*, and is finishing her thesis before she returns to Bali in a few months. **Brenda Kranz** spent several months learning microsatellite techniques in **Bernie Crespi**'s lab at Simon Fraser University, Vancouver and is completing this work, for relatedness analysis of gall-forming thrips, at the South Australian Museum. **Zeta Steen** continues her PhD work on the social behaviour of the native bee genus, *Lestis*. She also has a paper in review

on the behaviour of *Exoneura tridentata*. **John Zammit** and **David Morris** are getting good data following the first year of their PhD's. John is investigating extrinsic conditions which may facilitate sociality in insects and David is compiling the life history and phylogeny of leaf-tying thrips on *Acacia* trees. **Tania Neville** has a publication in review in the *Aust. J. Zool.* on the life history of *E. setosa* and is expecting her first baby in July. **Remko Leijs** continues his PhD work linking phylogeny and mating strategies in Carpenter bees. **Katja Hogendoorn** has fingers in many pies. She has interesting data on native bees pollinating tomato plants. We enjoy her hands on, teeth in, tastings during her seminars. **Simon Tierney** has deserted the lab in favour of a PhD in marine biology. However, he left a publication in *Aust. J. Zool.* (1997, 45:385) on the social behaviour of *E. xanthoclypeata*. **Kristi Bejah** completed Honours in November and is now busy writing papers on the behaviour of soldier castes in the gall-forming thrips, *Oncothrips tepperi*. **Stephen Reyes** has said goodbye to us and returned to the Philippines. His revision of the *Exoneura* and *Exoneurella* sub-genera has left us a little less confused about who's who and what's what.

Gary TAYLOR and Paul DANGERFIELD
Regional Councillors

## TASMANIA

### University of Tasmania, Department of Agricultural Science/Resource Protection Program at the CRC for Sustainable Production Forestry.

**Geoff Allen** has been appointed as the Insect Ecologist, half time lecturing at the University of Tasmania and half time researcher at the CRC. He will move from the Department of Zoology at the University of Western Australia to Hobart at the end of January.

The CRC staff and the students in particular are looking forward to his arrival. The Crop Protection position was still undecided at the middle of January. **John Madden**, having completed a move from Hobart to the east coast resort of Orford, continues to appear at the CRC a couple of days a week to keep an eye on the ladybird and entomopathogen work. The two post-graduate student scholarships to investigate the feasibility of augmenting numbers of natural predators and using entomopathogenic fungi for controlling high populations of *Chrysophtharta bimaculata* in plantations, have been postponed until later this year. **Tara Simmul** visited CSIRO Entomology in Canberra in November and then spent a week travelling through NSW and Victoria so that she now has the distribution data for the fire blight beetle, *Pyrgoides orphana,* for the whole of south-eastern Australia; she plans to model this data in the next few months. In December Tara met with **Humphrey Elliott** and **Peter Kube** (Forestry Tasmania), **Suzette Searle** (CSIRO Forestry, ACT) and some foresters from North Forest Products (Triabunna) to discuss how the fireblight beetle might affect silver wattle plantations and the implications of Tara's research on the beetle for future acacia plantations in Tasmania. **Sue Baker** has successfully collected overwintering ladybirds, conditioned them with different diets and then released them in plantations in December and January where they happily munched away on the eucalyptus leaf beetle eggs on *E. nitens*. **Steve Candy** escaped from his routine at Forestry Tasmania to spend three months at the CRC making some definite progress on his PhD project, modelling the impact of leaf beetle defoliation on eucalypt growth.

### Forestry Tasmania

It has been a good summer for leaf beetles in Tasmania, judging by the plagues of chrysomelid leaf beetles spending Christmas on top of Cradle Mountain. They emerged from overwintering at least four weeks earlier than usual to launch a concerted attack on Forestry Tasmania's forests. **Dick Bashford** has been traversing the State regularly to oversee the monitoring of the young *E. nitens* eucalypt plantations and advising on the IPM strategy. The leaf beetle that attacks juvenile foliage, *Chrysophtharta agricola*, is appearing in numbers large enough to require control, in spite of enormous populations of tachinid parasitoids. **Jane Elek** continues to pursue the elusive butterfly - the perfect IPM system which eliminates all the pests and none of the beneficials. She has been appointed for a further five-year term to give her a better chance of finding non-chemical solutions as well as to assist with the Forest Health Surveillance program.

### North Forest Products

**Luke Rapley** (son of entomologist **Paul Rapley**)

has been working with **David de Little** on two main projects:

1) *Heteronyx* and related melolonthine scarabs which attack newly planted eucalypt seedlings in plantations. The work involves identifying the species involved, observing their behaviour, testing several systemic chemical insecticides and testing for inherent resistance in the seedlings.
2) Insects infesting wood-chip piles. The work involves monitoring populations to predict the weather conditions under which nitidulid and staphylinid beetles are more prevalent.

**Bob Hardy** is hanging onto the term "entomologist" by a thin slimy thread as he has been battling with the challenge of managing the reticulated slug, *Deroceras reticulatum*, in large lettuce fields. He has noted more than the usual number of bush flies in the south of the State this year but is not sure whether they are escaping the uninviting climate of the big island or are victims of the persistent strong northerly winds this year.

**Ted Martin** has been working on a revised version of his Catalogue of Tasmanian Lepidoptera, with lots of nomenclature changes to make, thanks to the CSIRO Checklist! Has anyone any information on the early stages of *Hypsidia* (Drepanidae)? If so contact Ted on elmartin@southcom.com.au. For a picture of *H. erythropsalis* Rothschild see:

http://www.geocities.com/RainForest/Vines/3904

Jane ELEK
Regional Councillor

## VICTORIA

### Institute for Integrated Agric. Development Agriculture Victoria, Rutherglen.

Nestled amid the ocean of crops and livestock, entomologists **Garry McDonald**, **Alexei Rowles** and **Dave Brown** are the expertise behind two great projects operating out of Agriculture Victoria's research institute at Rutherglen in the State's north east.

Dave is currently undertaking a project aimed at elucidating the population biological behaviour of *Daktulosphaira vitifolii*, the global vine pest, grape phylloxera. This largely soil dwelling homopteran was responsible for the global decline of vines throughout the world a century ago and in Australia is still a severe risk to the viticultural industry. The data gleaned from work being carried out in vineyards in north east Victoria are expected to provide some good baseline information to achieve scientifically valid and fair tristate quarantine regulations. He is examining the rate and potential of natural and human-assisted dispersal and the overall seasonal trend in phylloxera abundance on vine roots, soil surface, vine trunks and aerially dispersed morphs.

Within a project aimed at developing Redlegged earth mite (RLEM) resistant canola, Garry and Alexei are screening hundreds of *Brassica napus* lines for resistance to their nemesis, RLEM (*Halotydeus destructor*). With chemical control becoming increasingly less effective, they hope to develop alternative control measures. Through several screening stages, both in the laboratory and the field, canola lines that show elevated levels of resistance continue to be identified. With this information, they are striving to enhance resistance by crossing various lines and rescreening them. This allows stable lines to be selected for later incorporation into the breeding program. This research also aims to determine the mechanisms of resistance, be they chemical or physical.

In addition, talks with plant pathologist, **Paul Raymer**, and entomologist, **David Buntin**, (University of Georgia) have outlined the possibility of collaborative research in the area of genotypically manipulating canola for mite resistance.

### Institute of Sustainable Irrigated Agriculture Tatura

**Alex Il'ichev** reports: We are very happy in our Institute at Tatura. Our project FR-608 "Wide Area Mating Disruption of OFM" is going very well and preliminary results show success. The level of peach shoot tips damage decreased dramatically when crops around, such as pears, apples, apricots, plums and others were covered with mating disruption. This is a good indication that our theory about migration of mated females of OFM from peaches under mating disruption to adjacent fruit blocks for mating is right.

Our huge project covers with mating disruption all fruit trees in the area (about 800 ha) and for OFM monitoring alone we have more than 240 traps. Additional pests such as dried fruit beetles, codling and light brown apple moths, *Helicoverpa* spp. and mites have also been monitored.

Our project has attracted attention not only in

the local community and mass media, but also of foreign entomologists. **Tom Blomefield** from Infruitec in South Africa visited our entomological laboratory and experimental plots in August 1997. **Soon Won Lee** from Taegu Apple Research Institute in South Korea has also been interested in our experiments, spending a week in our laboratory and the Cobram orchards in November.

**Institute for Horticultural Development**
**Agriculture Victoria, Knoxfield**

The Entomological Society of Victoria held a meeting at IHD for the first time on 24 October 1997. The meeting comprised an overview of the entomological and associated activities of the Institute and included an introductory talk on IHD by **Mali Malipatil**. This was followed by a presentation by **Kelvyn Dunn** on the historical and current development of the Victorian Agricultural Insect Collection (VAIC) and Victorian Plant Diseases Herbarium (VPDH). Members were also given an inspection of the Insectary by **Gordon Berg** who talked on IPM strategies. Just before closing, members were given the opportunity to examine particular insect groups in the VAIC of interest to them. The overwhelming success of the meeting suggests a great time was had by all.

A lightbrown apple moth (*Epiphyas postvittana*) modelling workshop was held at IHD on December 3, 4 and 5, organised by **W. Danthanarayana** (Armidale). Other participants included: **Ben Collyer** (CSIRO/CTPM), **Bob Emmett** (SHC), **DeAnn Glenn** (IHD), **Gunther Maywald** (CSIRO/CTPM), **David Madge** (SHC), **Craig McDonald** (CSU), **Shelley Rozario** (SHC), **Mark Smith** (HRDC), **Max Suckling** (NZ), **Bob Suthers** (CSIRO/CTPM), **David Williams** (IHD) and **Margaret Williams** (Hobart).

**Greg Forster**, University of Melbourne, Dookie, is doing a final year project on bud mite (*Colomerus vitis*) in grapevines at IHD with **DeAnn Glenn**.

**Department of Biological Sciences**
**Monash University**

December saw the merger of the Department of Genetics and Developmental Biology and the Department of Ecology and Evolutionary Biology to become the Department of Biological Sciences.

During his visit to **Kathy Lefevre**, Professor **Klaus H. Hoffmann** of Animal Ecology 1, University of Bayreuth, Germany presented an enlightening seminar entitled: "Hormonal control of insect reproduction" on his way to the Orthopterists' Conference. Kathy and Klaus discussed their latest results on allatostatins in the sheep blowfly and field cricket. Klaus also looked forward to talking about entomology when interviewed by SBS Radio German Program, but was a bit taken aback when all they seemed to want to hear about was tropical rainforest butterflies! **Fiona Clissold** also attended the Orthopterists' Conference where she presented her poster on the digestibility of two grasses by the Australian plague locust.

Nancy ENDERSBY and Robyn COY
Regional Councillors

**WESTERN AUSTRALIA**

**Zoology Dept**
**University of Western Australia**

**Geoff Allen**, who worked on parasitoids and Orthoptera at the Zoology Department of the University of WA for 5 years, left WA on 28th of January to take up a lectureship position in Entomology at the University of Tasmania's Department of Agriculture. We in WA are sad to see him leave, and wish him the best. Geoff, wife Tracey and son Cameron were looking forward to moving to the beautiful Apple Isle but Geoff will miss his riverside office next to Perth's scenic Swan River.

**Agriculture WA**

**Francoise Berlandier** has commenced working on a HRDC and AgWA funded project to improve methods to manage diamondback moth as part of a National project funded by the HRDC. Although in her 10th year (unbelievable!) working on aphids, Francoise has found the change to a new insect, especially the moth rearing component, very challenging and rewarding. She still enjoys her aphids and aims to concentrate on this group of insects, mainly to work on plant resistance and working out economic damage in field crops. However, she also recommends working on a new insect if the opportunity arises to fuel one's passion for entomology.

Françoise BERLANDIER
Regional Councillor

# FASTS NEWS

**(Federation of Australian Scientific and Technological Societies)**

**New Policy Document**

I have invited the Prime Minister to launch the revised version of the FASTS' Policy Document, at Parliament House in the week beginning January 19. The Policy has been heavily revised in the light of the FASTS' Council meeting on November 20 and the Board meeting the next day. This is in the light of the Government's actions over the last 19 months. In some cases they have addressed our concerns, and in other cases they have created new problems.

A Policy Committee headed by **Ken Baldwin** as chair of the Policy Committee has worked closely with FASTS' Executive Members **Joe Baker, Chris Easton** and **Jan Thomas** in revising the document. The draft Policy has been available for comment on the FASTS' web site. The Presidents of all Member Societies, together with other leading figures from organisations with an interest in S&T policy, were invited to the launch.

**New PMSEC**

New Minister for Industry, Science and Tourism **John Moore** and the Prime Minister are to be congratulated for picking up many of the reforms to PMSEC (the Prime Minister's Science Engineering and INNOVATION Council) suggested in Chief Scientist **John Stocker**'s recent review. PMSEC has been substantially revamped, along lines that fit very comfortably with the FASTS' Policy Document and will strengthen and simplify policy advice to the Government.

The non-Ministerial (ie scientific) members of PMSEC will meet out of session as members of standing committees to advise Government on broad issues. This will allow me as President of FASTS to meet regularly with other *ex officio* members such as the Presidents of the Academies of Science and the AVCC, as well as a small group of distinguished scientists who are members of PMSEC in their own right. The casualty in the process is ASTEC, which is to be wound up as soon as the current terms of its members have expired and when current inquiries have been completed.

**New Board and Executive**

Before I congratulate our new Members, I should pay tribute to the sterling efforts of former President **Joe Baker** who maintained a tireless presence for science and technology over his two year term. His efforts ensured that the Government was always aware that working scientists and technologists had a representative organisation in FASTS, and were prepared to offer constructive advice on a whole range of issues which are so important to the long-term future of Australia.

He was ably supported by the Executive and Board and I should particularly mention retiring Board Members **Dick Groot Obbink, Patricia Angus** and **Jan Thomas** and retiring Executive Member **Carolyn Mountford** for their support. Jan moves to the Executive as Vice-president, so we do not lose her skills and experience.

The composition of the new Board and Executive is:

| | |
|---|---|
| Executive President | Prof. **Peter Cullen** |
| Past President | Dr **Joe Baker** |
| Vice President | Dr **Geoff Hudson** |
| Vice President | Ms **Jan Thomas** |
| Secretary | Dr **Chris Easton** |
| Treasurer | Prof. **Snow Barlow** |

Board

| | |
|---|---|
| Chemistry | Dr **Alan Arnold** |
| Mathematical Sciences | Dr **Noel Barton** |
| Biological Sciences | Dr **Peter French** |
| Aquatic Sciences | Prof. **Craig Johnson** |
| Earth Sciences | Dr **Geoff Hudson** |
| Physical Sciences | Prof. **Jaan Oitmaa** |
| Plants and Ecology | Prof. **Snow Barlow** |
| Medical Sciences | Prof. **David Tracey** |

**FASTS' Council**

Good presentation and spirited discussions were the features of Council on November 20. Many Member Societies were represented by their Presidents and there were excellent sessions with **Martyn Evans** (ALP), **Natasha Stott Despoja** (Democrats) and **John Stocker** as Chief Scientist. Cabinet duties prevented Minister **John Moore** attending and he was represented instead by DIST Assistant Secretary **Paul Wellings**. Discussion centred on the draft policy document and the Ten Top Policies for 1998.

Guests at dinner at the National Press Club included Senator **Kate Lundy**, members of staff from both **Martyn Evans** and **Natasha Stott Despoja**, **Simon Grose** of the Canberra Times and **Julian Cribb** from CSIRO.

**Industry Statement**

The Prime Minister's announcement of increased support for Industry R&D does not replace the funding removed from R&D through earlier budgetary decisions but it does indicate an important shift in attitude. I had urged Australia to choose policies leading to a high-wage, knowledge-based society at the Council meeting. Perhaps the Prime Minister and his Government were listening!

FASTS welcomes the boost to funds for industry R&D through the START program and the awarding of 50 extra Australian postgraduate Awards (Industry) in Information Technology. It is important now to give industry and R&D organisations a period of certainty in which Government settings remain constant. It is hard to keep up with a policy line that is constantly chopping and changing. The Government chose to ignore the recommendations of the notorious Chapter 6 of the Mortimer Report, advocating the amalgamation of R&D Corporations, setting new and unrealistic targets for external earnings for CSIRO and the universities, and effectively abolishing the CRC Program.

**Top Ten Policies**

This list has proved an extremely effective political tool, and the 1998 list was released to the media on December 31. The composition of the items was keenly debated at both Council and the Board meeting the next day. Members felt there were so many areas in S&T crying out for action that it was difficult to limit the list to ten points - and impossible to prioritise those ten.

**Australian Council of Deans Joins FASTS**

We are delighted that the ACDS voted at its last meeting to join as Affiliate Members. The ACDS has become an increasingly effective group in the last year or so and I welcome **John Rice** to attend our Board meetings as President of the ACDS.

**Joint Letter with Industry Bodies to Prime Minister**

FASTS was invited to make a joint representation on industry R&D to the Prime Minister recently. Other bodies involved included the Australian Chamber of Commerce and Industry, the Business Council of Australia, the Institute of Engineers and the Minerals Council. The letter called on the Government to take urgent action to change tax and other arrangements in support of business R&D.

**NHMRC**

**Peter French**, new FASTS Board Member, advises that the Strategic Plan for the NHMRC is available at:
http://www.health.gov.au/nhmrc/publicat/strtplan/contents.html

The structure and resourcing of the NHMRC is important to many members of FASTS. We'd like comment and feedback on the plan, on strengths and weaknesses of the NHMRC's strategy and on any other aspects of the NHMRC that are felt to be in need of improvement.

**A Positive End to the Year**

1997 was a tumultuous year for scientists and technologists. But there are brighter signs around, in the shape of some recent Government decisions, and 1998 promises more.

We are coming towards a pre-election Budget, where the voters of Australia are rewarded for their patience over the last two years. It is an excellent time to remind politicians that Australia's future is inexorably linked with our scientific and technological competence.

**January Circular**

1. "SEND MORE MONEY, SEND IT TO ME, AND SEND IT NOW."

It was a no-contest when the FASTS Board came to choose the first of the Top Ten issues for 1998. The difficulties being experienced by science departments in universities was the unanimous choice.

The problems are well-documented: a rise in staff workload, funding cuts as universities scramble to make savings, increasing pressures on infrastructure and so on.

Those looking for solutions in the West Report have been disappointed. It has been roundly criticised for its lack of focus and clarity. But at least one member of the West Review has suggested scientists should look beyond the usual "send more money, send it to me, and send it now" response. West is on the table, West is where the Government stands at the moment. If anyone wants to change Government thinking about universities they should work at improving West.

The "University Science: Crisis or Crossroads?"

forum FASTS is organising at the National Press Club in Canberra on February 25 should help shift thinking in this area. It is a solutions-orientated day. It will examine the difficulties science is facing in the universities, but it will also invite all speakers to nominate what they see as ways of solving the problems.

It's important to get a wide perspective, and so industry groups such as the Australian Chamber of Commerce and Industry, and the Minerals Council of Australia have nominated speakers.

We need to forge a broad alliance to show the Government that investment in science pays off for the country, in terms of generating wealth and solving environmental problems.

Registration for the day is $150 ($45 for students), and all registration inquiries should be addressed to Jan Thomas. Her contact details:

JanThomas@VUT.edu.au

Ph (03) 9688 4401

2. WIDE SUPPORT FOR "CRISIS OR CROSSROADS?" FORUM

I am delighted that **John Niland,** new President of the Australian Vice-Chancellors' Committee, has accepted our invitation to be the keynote speaker at the NPC. The AVCC are working in conjunction with FASTS to present the Forum, along with the Council of Deans of Science.

There has been widespread support for the Forum, and speakers and chairs include:

* **John Niland**, Australian Vice-Chancellors' Committee
* **John Rice**, Council of Deans of Science
* **Julie Wells**, National Tertiary Education Union
* **Ashley Goldsworthy**, Business/Higher Education Round Table
* **John White**, Australian Academy of Science
* **Richard Carter**, President Aus IMM; Minerals Council of Australia
* **John Simmonds**, IE Aust; Academy of Technological Sciences and Engineering
* **Therese Charles**, Australian Chamber of Commerce and Industry
* **John Stocker**, Chief Scientist
* **Peter Cullen**, President FASTS
* **Vicki Sara**, Chair of ARC

3. NEW POLICY DOCUMENT LAUNCH

The FASTS' Policy Document for 1998 will be launched at the "Crisis or Crossroads?" forum on February 25, and public copies will be available then. This third edition has been completely revamped by the Policy Committee headed by **Ken Baldwin**. It contains 105 policies and actions, 31 of which are new.

Some of the changes were dictated by changing circumstances, some because our policies have been adopted by Government. Other changes reflect the different priorities of the Coalition Government.

4. HECS FEES AND SCIENCE ENROLMENTS

I have asked Minister Moore to take up the issue of the possible impact higher HECS fees are having on undergraduate science enrolments with his colleague the Minister for Education.

Those who attended the FASTS' Council in November 1996 will remember former Science Minister McGauran's promise to take up this issue with the then Minister for Education should the numbers turn bad. Minister Moore is yet to reply, but this will be an interesting test of the transferability of Ministerial promises!

5. PM'S SCIENCE, ENGINEERING AND INNOVATION COUNCIL

I have been encouraged by the refreshing personal commitment the Prime Minister has shown to the functioning of his Science, Engineering and Innovation Council (PMSEIC). Both the activities and membership of Council Members have been expanded, and I have been invited to join the working party on priority issues in science and technology. This group will work to identify those key issues which should be brought to the attention of the full Council.

I have written to the Prime Minister, inviting him to take a personal lead in selling the benefits of science to the Australian community. The issues are so important that it needs leadership from the top to resolve them. The letter read in part:

> "I believe that Australians need clear signals from the highest levels if the culture and attitudes of scientists and technologists, of their counterparts in industry and of Australians in general are to change to ensure that we become a high-technology high-wage economy, and not one based on low-wages and low skill levels."

6. SCIENCE NOW!

Earlier this month I met with the Presidents of the two Science Academies, the Australian Science Communicators and ANZAAS, to discuss

the formation of a Board to run a new-style forum to showcase Australia's newest and best science and technology.

The first forum SCIENCE NOW! will be held at the Melbourne Exhibition Centre, on 7-10 May 1998 in National Science Week in Melbourne, with financial support from the Victorian and Federal Governments. Member Societies are invited to nominate possible presenters. The most important element of SCIENCE NOW! will be the fresh science: scientists starting to make their mark in the world of science will be encouraged to present their work to the media and the public. Nomination criteria will be circulated in mid-February.

Other streams will include public debates and forums on cloning and other topical issues, professional development workshops and a Youth Program.

For more information contact Niall Byrne on 03 5253 1391, mob. 0417 131 977 or by email: niall@aahl.dah.csiro.au

7. HOUSE OF REPRESENTATIVES INQUIRY

FASTS was invited to make a submission to the H. of R. Committee examining the effects on R&D of public policy reform in the past decade. This was a challenging task - so challenging that DIST could not even provide a comprehensive list of the changes to policy over this period! Our full submission is on the FASTS' web site, but here is a brief extract:

> "The last decade has seen an acceleration of an international trend by Governments to curtail their operations, and to move away from areas which in the past have been regarded as their responsibility ... FASTS argues that moves by Government to corporatisation, privatisation and outsourcing are in some cases moves away from areas which should be the responsibility of Government. These cases threaten public-good research and long-term planning which is the basis of successful science."

8. NEUROSCIENCE SOCIETY LECTURE

**Graham Johnston** presented the Neuroscience Society's annual FASTS' Lecture to a public meeting at the ANS conference last week, "A chemist looks at the brain." His talk drew a generous response from the audience. Graham noted that ANS members **Max Bennett, Steve Redman** and **Ian McCloskey** played key roles in the establishment of FASTS in 1985, while **Ian Hendry, David Curtis, Elspeth McLachlan** and **David Tracey** represented medical sciences on the FASTS Board with great distinction. He learnt from **Ian Hendry** that 1995 Nobel Laureate in Medicine and Physiology, **Peter Doherty** preceded Ian on the FASTS' Board.

I would like to congratulate the ANS for their efforts to raise public awareness in science, and encourage other Member Societies to offer a FASTS' public lecture at their scientific meetings.

9. NEW SCIENCE JOURNAL

*Australasian Science* has merged with the journal *Search* and from February 1998 will be published monthly as *Australasian Science (incorporating Search)* and invites articles. More details from **Guy Nolch**.

Undoubtedly there are plenty of issues and plenty of concerns for FASTS over 1998. I hope to meet many of you at the Forum on February 25, to continue the work of addressing these issues.

Peter CULLEN
President
FASTS

**FASTS Top Ten Policies for 1998**

1. CRISIS IN SCIENCE IN THE UNIVERSITIES

FASTS urges the Government to resolve the funding crisis in the universities. Otherwise science departments will be closed in a haphazard manner by universities forced into excessive cost-cutting measures. If Government is unwilling to meet the true cost of maintaining science in all universities, then it should assist regions to coordinate scientific teaching and research.

2. A NATIONAL VISION FOR AUSTRALIA

FASTS urges the Government to determine a national vision for Australia, and to establish what science and technology is needed to support that future. This process may lead to "picking winners" - strategic investments to exploit strengths or remedy deficiencies in the economy's scientific and technological base.

3. BOOST INDUSTRY R&D

Industry investment in R&D is way behind that of comparable countries with Australia ranking 19th out of 24 OECD and Asian nations. FASTS urges the Government to boost this investment in R&D by increasing the tax concession for business

expenditure on R&D and allowing patent costs to be counted as R&D expenditure.

4. RAW DEAL FOR KIDS

Schools need an injection of younger and better-qualified teachers of science and maths. The Government should offer incentives like a "HECS holiday" (deferral of HECS payments) and higher salaries to teachers with higher qualifications to encourage the best people to take up the teaching of science and maths.

5. GETTING RESEARCH TO MARKET

The CRC Program turns good science ideas into industrial reality by bringing researchers and industry together to work on solutions. It is also training a new generation of young scientists for jobs in industry and strengthening the weak links between science and industry. FASTS urges the Government to continue the CRC Program.

6. SCIENCE AWARENESS

S&T create wealth-generating industries and solve environmental problems but the benefits are not fully appreciated. The Prime Minister should take a lead in selling the benefits by promoting science festivals, science education and careers and media coverage of science and technology.

7. VENTURE CAPITAL

Industry needs encouragement to invest in high-risk, high-tech projects with high potential returns. Government's current contribution is a drop in the ocean and FASTS calls for a boost through imaginative schemes such as tax deductibility for R&D investment income, extending the Factor f Scheme to other industries and making better use of Government purchasing.

8. JOBS FOR YOUNG RESEARCH SCIENTISTS

Job insecurity, lack of career paths and low salaries are driving good young scientists away from jobs in research. Australia is in danger of losing a generation of scientists. FASTS urges industry, the Government and the universities to work together to solve this waste of talent.

9. "BIG TICKET" SCIENCE

FASTS urges the Government to establish a rolling fund to provide for "big ticket" science, such as access to international telescopes and research ships to investigate the ocean's wealth.

10. HOW LOW CAN WE GO?

Only 19 per cent of the scientists who applied for Australian Research Council grants in 1997 were successful. ARC grants support basic science which are today's ideas and tomorrow's money-making innovations. FASTS urges an immediate boost to ARC and National Health and Medical Research Council funding.

Toss GASCOIGNE
Executive Director
FASTS

# ELECTRONIC NEWS

**XXI International Congress of Entomology**
Home Page - http://www.embrapa.br/ice

**Medical Entomology Unit**
**University of Sydney**

The Medical Entomology Home Page is up and 'running'. It will be further expanded with time, but please 'visit' us for enquiries re insects and other arthropods of medical importance and issues related to vector-borne disease.

http://www-personal.usyd.edu.au/~sdoccett/medical_entomology.htm

**CHAEC Home Page**
http://www.mov.vic.gov.au/chaec/index.html

**Ken Walker** continues to maintain and improve the CHAEC homepage at the Museum of Victoria. In addition to details about member collections, Ken has included a photo gallery of entomologists who have contributed significantly to our knowledge of Australian insects as well as examples of handwriting, notebooks and important collecting sites. Contributions, particularly of photographs, are welcome. Ken can be contacted by email from the CHAEC page.

**"Noctuidae of Russia and contiguous regions". NOCROS - database for MS DOS IBM PC.** Version 1.0 (1997 year) South Russia: 10 regions, 675 Noctuidae species, 32 references, distribution maps for every species, other information about noctuids.

The self-unzipping archive file noctua.exe (150 Kb) with the NOCROS database is available from the site: www.don.sitek.net/home/artohin.

You may install the protected Version 1.0 - FREE OF CHARGE. There are some limits for

use. Conditions for complete access to the database are in the included instructions.

# STUDENT NEWS

**STUDENT MEETING**

A student workshop was held at the 28th Annual Conference in Melbourne. The aims of this meeting were to outline what the society offers students, discuss ways to encourage interaction and communication between students and to see if there are ways to facilitate student research.

The meeting commenced with society president Prof. **Roger Kitching** outlining what the society offers students and he also provided some ideas of what we as students can do.

Briefly, the society offers:

- A journal - *Australian Journal of Entomology*
- A news bulletin - not only gossip on what is happening around Australia (in ento circles) but also advertisements of forthcoming conferences and workshops, announcements of new publications, etc.
- Conferences - annually
- Student prize - for best paper published by a student during the year in the *Aust. J. Ent.*
- Currently no other grants due to the current financial position of the society

Resources we can use:

- News Bulletin - our own section to use as we want
- Workshops at the annual conferences

At the discussion following Roger's talk students at the meeting were very positive about having our own page in the news bulletin, setting up a list server to be able to communicate rapidly with other students, having workshops at future conferences and getting student representatives in each State.

Ideas that were suggested included a Student Page in the news bulletin to include:

- Profiles of research groups, one university per volume, students providing an outline of the scope and direction of research being done there
- Highlight www pages of general/special interest
- Informal views, e.g. book reviews, reviews of conferences or workshops attended
- Answer FAQ such as where do you find the journal citation index, is there literature on how to write a paper, present a poster, etc.
- "trivia"

Other ideas include:

- Setting up list servers for cheap and rapid dissemination of information, e.g. advertise jobs &/or scholarships quickly amongst students.
- Workshops at future conferences. Some suggestions for topics included, Ph.D. what then? or how to get a post doc., how to write a paper. A possible format for this was to get a range of scientists to give their views in a fairly informal discussion style setting.
- Informal social get togethers

Thanks to **Zamir Hossain** we have some photos of the enjoyable dinner at Chin Chin's at Koto Moon which completed the evening (see previous page).

WHAT'S HAPPENED SINCE THAT MEETING

I've set up the list server, however, (yep, the big but) while it is working at the moment it isn't fully automatic yet. But by end of February it will be (I'm waiting on the department to set up its own hub). Currently, I have to manually redirect the incoming email and subscribe/unsubscribe people. So, if you send something and it doesn't go through immediately don't panic I probably haven't read my emails recently due to field work.

To send an email to be distributed, the address is ent.soc@sci.monash.edu.au

To subscribe/unsubscribe, send an email to fiona.clissold@sci.monash.edu.au with subscribe (or unsubscribe) email address (yours) in the body of the text and I'll add it to the list.

Applications to subscribe will only be available to Australian Entomology Society members &/or students studying entomology (who will of course be members). Any problems or queries please email me at:
fiona.clissold@sci.monash.edu.au

If we want a student workshop at the next conference we are going to need some ideas for topics and the format people would like e.g. informal discussion, etc?. So send me an email with your suggestions.

So please email us (your fellow students) with any ideas, suggestions, news, trivia, terribly important info, etc. It has to be better than my attempts. I'm happy to collate the information for inclusion in *Myrmecia* and add little bits and pieces

Entomology Students at the Melbourne AES Conference enjoy their meal at Chin Chin's after meeting to discuss future AES student activities. **Fiona Clissold** (AES Regional Councillor, Vic) who will be coordinating the Student News for *Myrmecia* is in the lower photograph at left foreground. [Photos: Zamir Hossain]

but like everyone else my time is pretty tight so it will be up to everyone to put in a little effort. There are only 4 volumes/year it shouldn't be too hard to fill a page! So any volunteers to do the next edition?

Some trivia: "The fastest recorded speed of an insect is 98 km/hr by *Austrophlebia costalis* (Odonata: Aeshnidae)". Glad I'm not trying to catch that one!

Fiona CLISSOLD
Monash University

# COMING EVENTS

## SCIENCE NOW!

SCIENCE NOW!, the first National Science Forum will be held at the Melbourne Exhibition Centre, on 7-10 May 1998, co-located with the Great Australian Science Show.

The aim of the Forum is to showcase the best and latest Australian science and technology, especially involving younger scientists. The major sponsor, the Victorian Government has been joined by the Commonwealth Department of Industry, Science and Tourism.in supporting the 1998 and 1999 forums.

SCIENCE NOW! will have four main elements:

**Breaking new ground:**

Fresh Australian science - scientists starting to make their mark in the world of science will be encouraged to present their work to the media and the public. A scientific committee will select the topics - key criteria will include that:

- the work has not received significant media attention
- the scientist can present the work in a way that makes it interesting/relevant to the media.

Nomination criteria will be circulated in mid-February.

**Science in society - point and counterpoint**

Debates and forums involving leading researchers and the general public both in the auditorium and via the media.

**Workshops**

Professional development opportunities for business, journalists, scientists & science communicators.

**Youth Program**

Aimed at secondary students with science activities and presentations on subject choices, choosing a university, scholarships and developing a career in science.

**Niall Byrne** is Program Coordinator for SCIENCE NOW! and can be contacted on:
Ph 03 5253 1391
Mobile 0417 131 977
Email: niall@aahl.dah.csiro.au

---

**AUSTRALIAN ENTOMOLOGICAL SOCIETY**
**29 AGM and Scientific Conference**

**26 - 29 September 1998**
**The University of Queensland, Brisbane**

The 29th AGM and Scientific Conference of the Australian Entomological Society will be held at The University of Queensland, Brisbane from Saturday 26 to Tuesday 29 September 1998. The meeting will immediately precede the 6th Australasian Applied Entomological Research Conference also to be held at the University.

The program for the AES conference will complement that of the applied conference. The Organising Committees are working together to ensure that the combined programs provide a comprehensive coverage of current trends and research in all or most fields of entomology. At the same time the committees are conscious of time restraints on conference participants and so each will provide a 'stand alone' program. This will give participants the option of attending one or both conferences. Participants will be able to apply for one or both conferences on a single form.

The Conference is being organised through the Institute of Continuing and TESOL Education (ICTE) at the University of Queensland. Please contact Sally Brown at the address below for general enquiries.

Sally Brown,
Institute of Continuing and TESOL Education (ICTE),
University of Queensland, Brisbane Q 4072.
Telephone: 07 33656360
International telephone: +61 7 33656360
Facsimile: 07 33657099
E-mail: sally.brown@mailbox.uq.edu.au

**Scientific Program**

The Society conference program will include three mini symposia plus sessions for contributed papers on insect and arachnid systematics and other papers that do not fit easily into the designated symposia sessions.

**Symposia and Session Coordinators**

Scientific Program Convenor:
Lindsay Barton Browne
Medical Entomology
Des Foley
ph: 07 3365 1358
d.foley@mailbox.uq.edu.au
Forestry Entomology
Judy King
ph: 07 3896 9447
king@qfslab.ind.dpi.qld.gov.au
Insect Movement
Tony Clarke
ph: 07 3365 7918
t.withers@ctpm.uq.edu.au
Systematics and software
Chris Burwell
ph: 07 3840 7703
chrisb@qm.qld.gov.au

**Web Page**

For more details see the Conference web page at: http://www.uq.oz.au/entomology/entsoc/entoconf.html

Margaret A. SCHNEIDER
Department of Entomology
The University of Queensland

---

**Sixth Australasian Applied Entomology Research Conference**

'Pest management - future challenges'
29 September - 2 October 1998
The University of Queensland
Brisbane, AUSTRALIA

in conjunction with
Australian Entomological Society 1998
Conference and 29th AGM
26 - 29 September 1998

Details: *Myrmecia* **33**(3): 29-32
via the AAERC homepage at:
http://www.ctpm.uq.edu.au/Education/AppliedEnto.html
or contact:
Sally Brown
ICTE Conferences
The University of Queensland
Brisbane QLD 4072 AUSTRALIA
ph: (+61 7) 3365 6360
fax: (+61 7) 3365 7099
Email: sally.brown@mailbox.uq.edu.au

---

**Xth INTERNATIONAL CONGRESS OF ACAROLOGY**

**6-10 July 1998**
**Canberra, Australia**

Further Information:
Dr Bruce Halliday
Principal Research Scientist (Acarology)
CSIRO Division of Entomology
GPO Box 1700
CANBERRA ACT 2601
AUSTRALIA
Phone: (06) 246 4911
Fax: (06) 246 4000
Email: bruceh@ento.csiro.au

---

**XIVth INTERNATIONAL PLANT PROTECTION CONGRESS**

***Plant Protection Towards the Third Millennium***
***Where Chemistry Meets Ecology***
**Jerusalem, ISRAEL**
**July 25-30 1999**

Details: *Myrmecia* **33**(2): 24-25

Contact:
Congress Secretariat
XIVth International Plant Protection Congress
PO Box 50006
Tel Aviv 61500
ISRAEL
Telephone: +972 3 514 0000
Fax: +972 3 514 0077 or 517 5674
Email: IPPC@Kenes.com

---

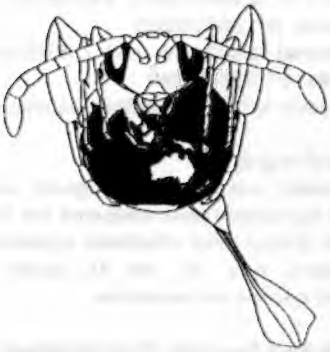
**The Australian Society for Microbiology Inc.**
**1998 Annual Scientific Meeting & Exhibition**
**"MICROBES TO THE MAX"**
**27 September - 2 October 1998**
**Wrest Point Hotel Casino**
**HOBART TAS 7000**

For more information please contact:

ASM Secretariat
Unit 23, 20 Commercial Road
Melbourne VIC 3004
Australia
Ph: 03 9867 8699
Fax: 03 9867 8722
Email: ASMConference@clari.net.au
Website: http://www.vicnet.net.au/~asm

---

**Fourth Conference of the International Society of Hymenopterists.**



**Canberra, AUSTRALIA**
**6-11 January 1999**

Details: *Myrmecia* **32**(1): 28

The Conference address and contact is:
4th Conference of the International Society of Hymenopterists,
c/o CSIRO, Division of Entomology,
P.O. Box 1700
Canberra, ACT 2601
AUSTRALIA
fax: 61-6-246.4264
email: iann@ento.csiro.au.

---

**XXI International Congress of Entomology**
**Iguassu Falls, Brazil**
**20-26 August 2000**
**Entomologists Preserving Biodiversity**

Brazil was chosen to host the next International Congress of Entomology, to be held on August 20-26, 2000, in Iguassu Falls, just on the border of Brazil, Argentina and Paraguay.

The XXI ICE will be the entomological gateway for the next century - and for the next millennium. This is why some of the icons of the moment should drive the congress. The most important of them is technology. Our idea is to use the most

updated technology to make the congress as profitable and pleasant as possible. To start with, the INTERNET will be our daily meeting point. Instead of sending common announcements of decided matters, we prefer to interact with all interested entomologists, to help us with administrative and scientific organisation. We strongly believe that the Congress will be as good as the quality and intensity of participation of entomologists on our INTERNET sites, where every aspect of the Congress can be discussed.

More than that, we intend to have a local computer network to help participants with worldwide communications on the congress site (WWW, E-mail, FTP, INTERNET conferences, etc.). Desk messages will be computer based and available throughout the network. Computers will also be available for presentation and demonstration, and for simulation model sessions. Cable TV will be used to broadcast the plenary lectures, so participants that go out of the auditorium, for any reason, can follow the lecture on any connected TV set, including hotel room TVs.

Abstracts will be divided by session (24 volumes will be available), but a CD-ROM will also be given to participants, on Winword format, to be accessed through personal computers. Participants can come with their own notebooks to follow sessions, or to connect them to the local network system by PCMCIA modem cards.

Not only will technology alone make the core of the Congress. Also, sightseeing will be available to some of the most beautiful places of the world. A concert will stimulate the participants' senses. Lunch and dinners will constitute not only an opportunity to relax with friends, but also a unique chance to try exotic and spicy meals.

Iguassu Falls is a very safe place and no epidemic or endemic diseases have been reported there in the past decades. For any emergency, first aid will be available at the congress sites. Also, ambulances with intensive care will be ready at the same sites. Your personal luggage will also be insured in case of loss.

We would like to have some break-throughs, like an insect exposition (rare insects, new species, etc.), and also we propose to organise games (tennis, basketball, soccer, etc.) for organised teams of participants.

The organising committee welcomes any criticisms or suggestions to make your Congress a profitable and pleasant event. Do not hesitate to discuss and participate at our different sites. Do not forget to advise other entomologists of our INTERNET address. And if there is something that we missed, for the moment, please contact me and I promise I will do my best to support your request.

Decio Luiz GAZZONI
President, XXI ICE

Everything you could possibly want to know about the next ICE is available on the Congress Web Page **http://www.embrapa.br/ice**, including details of accommodation, delegates, services, associated activities, administrative matters, sponsors, symposia, etc.

If you have any suggestions or need any kind of information regarding the XXI ICE symposia, or other scientific issues of the Congress, you can contact the President of the Scientific Program Committee:

Dr F. Moscardi, at moscardi@cnpso.embrapa.br. Non scientific issues of the Congress can be obtained at ice@sercomtel.com.br.

---

# NEW PUBLICATIONS

**Pests and Beneficials in Brassica Crops, by Sue Heisswolf andEthna Brown Queensland Dept of Primary Industries**

This is a booklet for anyone involved in managing pests in brassica vegetable crops. As well as providing clear photos of pests, predators and parasites, it gives detailed descriptions on how to monitor for these pests and beneficials in commercial brassica crops. Price is $18. To order your copy, contact DPI Publications: ph 1800 816 541, fax (07) 3239 6509 or email books@dpi.qld.gov.au.

---

**"Identification Guide to Thrips Associated with Crops in Australia" by Laurence A. Mound, CSIRO Entomology and Peter S. Gillespie, NSW Agriculture, Orange**

This book, designed to be used in the entomology laboratory next to your microscope, is the first comprehensive, user-friendly identification guide to the economic Thysanoptera of Australia, together with the common non-economic species

with which they might be confused. It is designed with hundreds of illustrations to make the illustrated keys easy to use. The book also provides notes on preparing thrips for identification, the biology of the group and on the Australian native Thysanoptera. There is also an extensive bibliography.

The book can be purchased from the NSW Agriculture Bookshop at $25.00, (incl. postage):

NSW Agriculture Bookshop
Locked Bag 21
Orange NSW 2800
Ph: 1800 028374
Fax: 1800 642065
or download an order form from the web:
http://www.agric.nsw.gov.au/Bookshop

# NOTICES

## IMPORTANT NOTICE FOR ABRS APPLICANTS

POSTPONEMENT OF ABRS CALL FOR 1999 RESEARCH GRANT APPLICATIONS

Future funding of the ABRS program is currently under consideration by the Federal Government and new funding is being considered in the 1998/99 Budget context. Given the uncertainty of the funding situation at the present time, Environment Australia has proposed that the calling for applications be delayed for a short time as the outcome of the bid for additional funds should be known in the next couple of months.

The schedule of calling for ABRS research grant applications will be revised as follows:

| | |
|---|---|
| Call for applications | 4 April 1998 |
| Availability of forms and guidelines | early April 1998 |
| *Biologue* | 3 April 1998 |
| Deadline for grant applications | 10 June 1998 |

If you have any queries relating to this postponement of the Grants for 1999, please contact **Liz Visher**, Manager, Participatory Program:

Phone 02 6250 9554
Fax 02 6250 9555
Email lvisher@ea.gov.au

---

### Directory of SW Pacific Entomology on the Web

A recent proposal to help make entomologists more accessible was to load the Directory of SW Pacific Entomologists onto its own web page. This has had a mixed reception from members of the Society's Council but in general it is agreed that such a proposal is worthwhile, particularly as the details published in the Directory are already in the public domain. However there are some details to be ironed out first:

1. A number of people will have legitimate reasons for not wanting their names, numbers and interests listed.
2. Many of the addresses in the database are home addresses, not business addresses
3. The current Directory of SW Pacific Entomology includes details of entomologists who are not members, as well as members, so the membership database itself wouldn't be enough.
4. Some proportion (perhaps a fifth) of our members do not have access to the web.
5. Most scientific societies publish printed membership lists with contact numbers etc; however, using the web is relatively new and, like all new things, some won't like it just because it is different. There is also the possibility that an electronic list would be easier to abuse than a printed list.

Members will be sent a separate permission sheet with their next subscription notice which will provide an opportunity for each member to state exactly what information they wanted listed on the web site, if any, and sign it at the bottom.

Any member with an opinion on this proposal is invited to contact the Secretary Dr D.E. Walter at the address on the inside front cover of this issue.

---

### NEW SCIENTIFIC SOCIETY FORMED
### Australasian Evolution Society

Evolutionary biologists in the Department of Zoology at the University of Queensland announce the formation of the Australasian Evolution Society. We hope that this fledgling society will become an important forum for advanced research and teaching of evolution in the Southern Hemisphere.

* A scientific society for those interested in theoretical or empirical studies of evolution.
* The society wishes to encourage foundation membership from researchers in all appropriate disciplines, including Botany, Zoology,

Entomology, Parasitology, Physiology, Anatomy, Morphology, Developmental Biology, Geology, Palaeontology, Ecology, Genetics, Systematics, Anthropology, Epidemiology, Behavioural Sciences, Psychology, Philosophy, Mathematics and Computer Science.

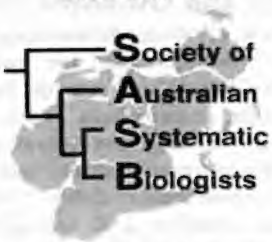
* The society is aimed at residents of Australia, New Zealand or the Pacific basin with research interests in general evolutionary questions and at members of the international community with interests in evolution in Australasia.
* The society will aim to encourage the scientific understanding of the origins and maintenance of the diversity of life on Earth. The society will promote excellence in the teaching of evolution and encourage the sharing of teaching resources. We hope to organise advanced workshops for postgraduate students.
* The society will aim to promote the use of evolutionary thinking in applied fields such as drug resistance and other areas of medicine, conservation, pest control and the use of genetic algorithms in engineering and technology.
* The society will aim to encourage pure research and collegial contact among its members and will promote collaborative research, particularly of an interdisciplinary nature. A World-Wide Web home page, an e-mail mailing list and an annual bulletin are planned.

It is proposed that an inaugural symposium be held at the University of Queensland in Brisbane in mid- to late 1998. For a membership form or other enquiries, please write to:

Dr. S. Blomberg
Dept. of Zoology
University of Queensland
St. Lucia Qld 4072 Australia
e-mail: S.Blomberg@mailbox.uq.edu.au

---

## SOCIETY OF AUSTRALIAN SYSTEMATIC BIOLOGISTS




The Society of Australian Systematic Biologists has been formed in Australia to represent and foster the interests of systematics and systematists. It encompasses the broad interests and activities of those working in the areas of taxonomy, phylogenetics, biogeography and evolutionary biology, of all groups of organisms and with specific reference to the Australasian Region. The Society operates only by email and has NO MEMBERSHIP FEES. To join please send your Full Name, Postal Address, Taxon group/Interests, E-mail Address, Phone No. and Fax No., to the Society's Secretary, Dr David Morrison (davidm@bio.uts.edu.au).

Details about the Society and its inaugural Conference, which was held in Adelaide 29 Sept - 3rd October 1997, can be found on the Society's Home page (http://www.science.uts.edu.au/sasb/)

The Society's WWW Home Pages have recently undergone some major renovations. The following changes have been made:-

The new Society logo has been incorporated into all of the pages.

The Minutes of the SASB General Meeting in Adelaide have been added (under Society Business). Links to the text of the Abstracts from the Adelaide conference have been made (under SASB Conferences).

The text of Sen. Hill's Plenary Speech at the Adelaide conference has been added (under SASB Conferences).

The recent letters to/from Sen. Hill regarding ABRS funding have been added (under Society Business).

The recent submission to the ABRS Review has been added (under Society Business). In addition, all of the links have been checked and updated, and several new links have been added (under Internet Links). A few more changes are in the pipeline, and will hopefully be announced soon.

## ATTENTION!
## Remote and Off-shore Students

If you want to study Entomology but cannot attend a University, then we can help. The University of Queensland, through its Department of Entomology, now offers instruction in the sciences of Entomology and Acarology at both the undergraduate and postgraduate levels for external Australian and overseas students. The Department has six core teaching and research programs: Ecology & Biodiversity; Pest Management & Biocontrol; Systematics & Morphology; Acarology; Behaviour & Physiology; Medical Entomology. The expertise available through these programs enables the Department to offer a wide range of subjects and research topics. The relatively small size of the Department permits individual, personalised attention to student needs. Staff are committed to excellence in teaching and supervision, utilising innovative methods. Students have access to the latest developments in information technology, and coursework subjects are available via the internet.

Postgraduate Courses offered:

**Doctor of Philosophy (PhD)**
3-4 years full-time; 3-5 years part-time
Mode of study: by research

**Master of Science (MSc)**
1-2 years full-time; maximum 5 years part-time
Mode of study: by research

**Postgraduate Diploma in Science (PGDipSc)**
1 year full-time; maximum 4 years
Mode of study: by coursework
NB. This course provides entry qualifications into a research higher degree

**Graduate Certificate in Science (GCSc)**
Half year full-time, maximum 1.5 years
Mode of study: by coursework
NB. Qualification in this course can be credited towards a PGDipSc

**Fees** for Overseas PhD and MSc students and all PGDipSc and GCSc students:
Part-time: $2,500/ semester
Full-time: $3,250/semester
NB. Australian students do not pay fees for research PhD and MSc courses

Undergraduate subjects offered through Open Learning Australia (no previous tertiary qualifications required):

**Introductory Entomology** (3 months)
**Urban Insects and their Control** (3 months)

**Fees**: $425/subject

For more information visit our Web Page at:
http://www.uq.oz.au/entomology/home.html

OR contact **Margaret Schneider**:
Phone: 07 33652257
Fax: 07 33651922
E-mail: M.Schneider@mailbox.uq.edu.au

---

### CSIRO JOURNALS CONCESSIONAL PRICES

Any member who is not getting CSIRO journals at concessional prices and who would like to, please contact:

Tracey Lockwood
Subscriptions Officer
CSIRO Publishing
PO Box 1139
Collingwood Vic 3066
Phone: 1800 626 420
Fax: 03 9662 7555
Email: info@publish.csiro.au

## THE AUSTRALIAN ENTOMOLOGICAL SOCIETY INC.
## AUDITORS' REPORT

SCOPE

We have audited the Financial Statements, being a special purpose financial report, of the Australian Entomological Society for the year ended 31st December 1996 as set out below.

The Executive is responsible for the fincancial statements and has determined that the accounting policies used are consistent with the financial reporting requirements of The Austrtalian Entomological Society and are appropriate to meet the needs of the members. We have conducted an independent audit of these Statements in order to express an opinion on them to the Members.

The financial statements have been prepared for distribution to members. We disclaim any assumption of responsibility for any reliance on this report or on the financial statements to which it relates to any person other than that for which it was prepared.

Our audit has been conducted in accordance with Australian Auditing Standards. Our procedures included examination on a test basis, or evidence supporting the amounts and other disclosures in the financial statements, and significant accounting estimates. These procedures have been undertaken to form an opinion as to whether, in all material respects, the financial statements are presented fairly in accordance with accounting policies described in Note 1 to the financial statements. (These policies do not require the application of all Accounting Standards and UIG Consensus Views.)

The audit opinion expressed in this report has been fromed ont he above basis.

QUALIFICATION

(1) We have not checked the Stock on Hand but have accepted a Certificate of Stock on Hand at 31st December 1996 from an Officer of the Society

(2) Our audit was conducted on the basis of cash bankings and payments through the Sirocredit, Commonwealth Bank and Suncorp Building Society Accounts. In addition we have received advice of Acounts payable, receivable and subscriptions in Advance. From this information we have prepared the attached accounts.

AUDIT OPINION

Except for these qualifications, in our opinion, the financial statements present fairly and in accordance with the accounting policies described in Note 1 to the financial statements the financial position of The Australian Entomological Society Incorporated as at 31st December 1996 and the results of the operations of the Society for the year ended.

J.H. DOYLE & CO.
C. WELLINGTON (signed)
REGISTERED COMPANY AUDITOR
ADELAIDE 4/2/98

## NOTES TO AND FORMING PART OF THE ACCOUNTS
For the Year Ended 31st December 1996

1. STATEMENT OF ACCOUNTING POLICIES

(a) These financial statements are a special purpose financial report prepared for use by members of the Association. The Executive has determined that the Association is not a reporting entity and therefore there are no requirements (Urgent Issues Group Consensus Views) in the preparation and presentation of these statements.

(b) Stock on Hand has been valued at the lower of cost or net realisable value.

(c) Subscriptions received for the year ended 31st December 1997 prior to the 31st December 1996 have been shown as In Advance. All subscriptions for 1996 and prior years have been accounted for on a cash receipts basis.

## BALANCE SHEET
As at 31st December 1996

| | To Dec 1996 | To Dec 1995 |
|---|---|---|
| ACCUMULATED FUNDS | | |
| Unappropriated Surplus B/fwd | 53,425 | 72,195 |
| TOTAL FUNDS | 53,425 | 72,195 |
| These funds are represented by: | | |
| CURRENT ASSETS | | |
| Commonwealth Bank Cheque A/c | 23,991 | 28,592 |
| Sirocredit A/cs | 1,658 | 11,557 |
| Suncorp Building Society - Journal A/c | 62 | 52 |
| St George Bank - AGM A/c | -- | 1,569 |
| Accounts Receivable | 952 | 135 |
| Stock of Publications | 3,500 | 8,203 |
| Commonwealth Bank - Term Deposits | 57,832 | 63,618 |
| TOTAL CURRENT ASSETS | 87,995 | 113,726 |
| CURRENT LIABILITIES | | |
| Accounts Payable | 15,578 | 11,950 |
| Subscriptions Received in Advance | 18,992 | 29,581 |
| TOTAL CURRENT LIABILITIES | 34,570 | 42,531 |
| CURRENT ASSETS LESS CURRENT LIABILITIES | 53,425 | 72,195 |
| **NET ASSETS** | 53,425 | 72,195 |

## STATEMENT OF ACCUMULATED FUNDS
For the Year Ended 31st December 1996

| | To Dec 1996 | To Dec 1995 |
|---|---|---|
| Operating Surplus/Deficit B/fwd | (18,770) | 1,048 |
| Operating Deficit B/fwd | (18,770) | 1,048 |
| Add Accumulated Surplus at the beginning of the Period | 72,195 | 71,147 |
| | 53,425 | 72,195 |
| ACCUMULATED SURPLUS AT YEAR END | 53,425 | 72,195 |

## INCOME AND EXPENDITURE STATEMENT

For the Year Ended 31st December 1996

| | To Dec 1996 | To Dec 1995 |
|---|---|---|
| **INCOME** | | |
| Members Subscriptions (Note 1) | 28,980 | 32,531 |
| Interest Received | 5,041 | 4,649 |
| Advertising | 980 | 755 |
| Sundry Income | 252 | 113 |
| Journal Subs & Sale of Publications | 33,866 | 33,844 |
| **TOTAL INCOME** | 69,119 | 71,892 |
| **LESS EXPENDITURE** | | |
| Audit and Accountancy | 850 | 790 |
| Awards and Grants | 8,925 | 3,265 |
| 28th AGM Exes | 1,000 | 48 |
| Bank Fees | 755 | 822 |
| Constitution Changes | -- | 215 |
| Directory SW Pacific Entomology | 2,440 | 427 |
| Donations | -- | 900 |
| Journal | | |
| - Professional Fees | 6,884 | 6,654 |
| - Printing | 40,262 | 38,169 |
| - Reprints | 2,016 | 2,353 |
| - Postage | 7,273 | 6,091 |
| - Other Exes | 351 | 40 |
| News Bulletin Editorial & Sund. | 593 | 642 |
| Membership Expenses | -- | 666 |
| "Myrmecia" - News Bulletins | 11,604 | 8,839 |
| Postage, Printing and Telephone | 1,250 | 523 |
| Sundry Expenses | 841 | 47 |
| Subscriptions & Memberships | 1,346 | 353 |
| Travel & Accommodation | 1,500 | -- |
| **TOTAL EXPENDITURE** | 87,889 | 70,844 |
| **OPERATING DEFICIT FOR THE YEAR** | (18,770) | 1,048 |

# THE AUSTRALIAN ENTOMOLOGICAL SOCIETY INC.

## FORM OF NOMINATION FOR MEMBERSHIP

To be returned to:
Dr D.E. Walter, AES Secretary, c/o Dept. of Entomology
University of Queensland, QLD 4072

We the undersigned

Proposer: ..... .....
(print name here) (signature)

**Seconder:** ..... .....
(print name here) (signature)

being financial members of the Society, propose the following for membership of The Australian Entomological Society Inc.:

Title .. Initials .. Given Name ..... Family Name .....

of (Address): .....

.....

Tel: ..... Fax: .....

Email: ..... Degrees, etc: .....

Occupation or Appointment: .....

Interests, experience, and publications in entomology for publication in the News Bulletin *Myrmecia* (please attach brief resumé):

I accept nomination and undertake if elected to abide by the rules of the Society, and to pay annual subscriptions by the date prescribed.

**Signature:** ..... **Date:** .....

For **1998**, new student/retired members - $25.00; new full members - $55.00. **Payment with nomination required.** (NB. These rates only apply for new memberships.

.....

**(EXECUTIVE USE ONLY)**

Nom. received: ..... Nom. considered at meeting: .....

Payment received: ..... Elected at meeting: .....

Membership type: ..... Applicant advised: .....

## REGIONAL COUNCILLORS

**Queensland**
Mr I.R. Kay
Qld Dept of Primary Industries
Bundaberg Research Station
MS 108 Ashfield Rd
BUNDABERG Qld 4670
Ph (07) 71556244
Fax (07) 71556129
Email: kayi@dpi.qld.gov.au

Dr Tony Clarke,
Dept. of Entomology
University of Queensland
St. Lucia Q 4072,
ph (07) 3365 7918

Dr C. Reid
Zoology Dept
James Cook University
Townsville Qld 4811
Ph (07) 77815 753
Fax (07) 77251 570

**New South Wales**
Mr J.H. Hawking
Murray-Darling Freshwater
Res. Centre
PO Box 921
Albury NSW 2640
Ph (02) 6048 1002
Fax (02) 6043 1626
Email: hawkingj@
Watson.canberra.edu.au

Dr G.M. Gurr
Orange Agricultural College
Leeds Parade
ORANGE NSW 2800
Ph (02) 63635551
Fax (02) 63635590
Email:
geoff.gurr@oac.usyd.edu.au

Mr Cameron Webb
Dept of Medical Entomology
Westmead Hospital
Westmead NSW 2145
Ph (02) 9633 7265
Fax (02) 9633 5314
Email: cameronw@cidm.wsahs.
nsw.gov.au

**Australian Capital Territory**
Dr M. Matthews
CSIRO Entomology
GPO Box 1700
CANBERRA ACT 2601
Ph (02) 6246 4281
Fax (02) 6246 4264
Email:
marcus.matthews@ento.csiro.au

Dr G. V. Maynard
AQIS, DPIE
GPO Box 858
Canberra ACT 2601
Ph (02) 6272 5725
Fax (02) 6272 3399
Email:
gmaynard@mailhost.dpie.gov.au

**Victoria**
Ms N.M. Endersby
Inst. Horticultural Development
Private Bag 15
South Eastern Mail Centre
Vic 3176
Ph (03) 9210 9222
Fax (03) 9800 3521
Email:
endersbyn@knoxy.agvic.gov.au

Ms F. Clissold
Dept Ecol, Evol. Biol & Genetics
Monash University,
Clayton Vic 3168
Ph (03) 9905 5631
Fax (03) 9905 5613
Email:fiona.clissold@sci.monas
h.edu.au

**South Australia**
Dr G.S. Taylor
Dept of Crop Protection
Waite Campus
University of Adelaide
PO GLEN OSMOND SA 5064
Ph (08) 8303 7264
Fax (08) 8379 4095
Email:
gtaylor@waite.adelaide.edu.au

Dr P. Dangerfield
Dept of Crop Protection
Waite Campus
University of Adelaide
PO Glen Osmond
South Australia 5064
Ph (08) 8303 7273
Fax (08) 8379 4095
Email:
pdangerf@waite.adelaide.edu.au

**Tasmania**
Dr J. Elek
Forestry Tasmania
GPO Box 207B
HOBART Tas 7001
Ph 036 2338220
Email jae@forestry.tas.gov.au

**Western Australia**
Ms F.A. Berlandier
Agriculture Western Australia
Locked Bag No 4,
Bentley Delivery Centre,
WA 6983
Ph: 61 8 93683249
Fax: 61 8 93683223
email:
fberlandier@agric.wa.gov.au

**Northern Territory**
Mr G. Bellis
NT DPIF
PO Box 79
BERRIMAH NT 0828
Ph (08) 8999 2345
Fax (08) 8999 2015
Email
Glenn.Bellis@DPIF.nt.gov.au

## REPRESENTATIVE COUNCILLORS

**Entomological Society of Queensland**
Dr J. King
QDPI Forestry Service
PO Box 631
Indooroopilly Q 4068
Ph (07) 3877 9716
Fax (07) 3371 2217

**Entomological Society of New South Wales**
Dr A.D. Clift
c/- Zoology Dept
University of Sydney NSW 2006

**Entomological Society of Victoria**
Mr R. MacPherson
8 Jean St
Lr Templestowe Vic 3107
Ph (03) 9850 4319 (AH)

## OS CORRESPONDENTS

Ms O.R. Green
40 Preston Ave
Henderson
AUCKLAND 8
NEW ZEALAND
Greeno@lynfield.mqm.govt.nz

Prof. R. Kumar
Dept of Agriculture & Livestock
PO Box 1430
BOROKO
PAPUA NEW GUINEA
Ph 67-5-230268
Fax 67-5-230279

**Printed by:**
G.K. Craig Pty Ltd
239 McLachlan St
ORANGE NSW 2800
Ph (02) 6362 7411
Fax (02) 6361 3797

**Distributed by:**
Blackwell Science Asia
54 University St
CARLTON VIC 3053
Ph (03) 9347 0300